

A Thesis Submitted for the Degree of D.B.A. at the University of Warwick

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Trusting fast and slow

A consulting model for businesses seeking to increase consumer trust,
based on evidence of dual cognitive processes in consumer trust
judgements and the adaptation of risk-based trust measurement to a
consumer context

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Doctor of Business Administration thesis
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May 2021

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Abstract

Businesses need consumers to trust that their products and services will live up to expectations and trust their corporate claims to, for example, protect customer data or act sustainably. A rich literature in economics, marketing, management and behavioural science offers models of trust-building and potential interventions, but little practitioner guidance on how businesses should build trust in different situations. Moreover, ways of measuring trust differ across the literature: interpersonal trust research uses risky games to measure trust, but research with consumers relies on risk-free surveys.

In Study 1 a novel risk-based measure of consumer trust is developed and used by 2,042 UK consumers to measure trust in nine companies across three sectors. For eight of these companies, the new measure leads to different conclusions than those reached using a standard measure. Trust correlates strongly with positive affect on the standard measure, but not on the risk-based one.

A theoretical framework based on a dual process model of cognition explains why this correlation should change for the two different measures. It predicts that a relevant but complicated reason to trust a business, its highly competitive environment, will increase the risk-based measure of trust, but not on the standard measure. It also predicts that an irrelevant reason to trust a business, its simplicity, will do the opposite. In Study 2, pre-registered hypotheses in line with this proposal are largely supported in an experiment involving 1,762 UK consumers.

Based on these findings, a consulting model is proposed which advises businesses to consider the cognitive process that consumers use when they form trust judgements. While specific contexts vary, this model advises that when consumers are using fast processes businesses should focus on heuristic trust-building interventions, while, when consumers are using slower processes, businesses can deploy more complex and nuanced evidence of their trustworthiness.

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Acknowledgements

This work was supported financially by my employer, the consultancy Teneo UK.

Chris Jones, of Blue Rubicon and now Teneo, first suggested a part-time doctorate to me, over Japanese whisky, while taking a break from an intense consulting project in Tokyo. I'm indebted to him for that suggestion, and for his encouragement and instrumental support in persuading the business to fund my academic fees. Rosie Steele was on the same trip, and has also been a great ally, especially in making the fieldwork involved in this research happen. The thinking presented here would be much less developed without the conversations that I've had about trust with both of them over the years, as well as with other current and former Teneo and Blue Rubicon colleagues and clients, including Matt Burchell, Paul Duffy, Fraser Hardie, Jenny Jamie, Patrick Loughran, Katie Mackay and Basil Towers, as well as Ben Shimshon at Britain Thinks.

Nick Chater has been a brilliant supervisor, helping me to navigate both the complexity of the different topics discussed here, and the unfamiliar world of academia. He combines vast intelligence with genuine kindness and being able to spend time with him has been one of the most enjoyable parts of this whole process. Being part of the Behavioural Sciences Group at Warwick Business School has also been hugely stimulating, and I'm grateful to all of the academics and fellow doctoral students who have welcomed someone from outside academia, as well as all the people involved in running the Doctor of Business Administration programme. Andrea Isoni and Nick Powdthavee provided useful comments at the programme review stage, and Christian Stadler, Mark Johnson, and Pietro Micheli, all provided helpful feedback and encouragement on this project as I completed the taught elements of the programme. Andrea deserves a second vote of thanks as he, along with Joachim Krueger of

Brown University, conducted my viva examination. They both balanced the need for scepticism and challenge with positivity and enthusiasm for the subject in a way that was invigorating, and that I deeply appreciated.

None of this would have happened without the support of my parents Richard and Rachel and, most of all, my wife Sarah. They have always trusted me, even in slightly unusual schemes like taking on a doctorate while also getting married and continuing to work as a consultant. And a final thanks to our daughter Emily, who helpfully delayed her arrival into the world until 48 hours after my viva. While she sometimes looks like she is considering the question deeply, so far, she seems to trust us to take care of her.

Declaration

This thesis is my own work, has not been submitted for a degree at another university, and has not been published.

Introduction and literature review

“Virtually every commercial transaction has within itself an element of trust, certainly any transaction conducted over a period of time. It can be plausibly argued that much of the economic backwardness in the world can be explained by the lack of mutual confidence...”

Kenneth Arrow, *Gifts and Exchanges*

INTRODUCTION

According to the OECD (2017a, p.126) “trust is a multi-billion dollar headache for companies... [and] gaining and regaining trust is a commercial imperative”. There is substantial evidence that businesses that are more trusted by consumers have a competitive edge: more trusted sellers have an advantage in terms of consumer consideration (Erdem & Swait, 2004), purchase intention (Elfenbein, Fisman, & McManus, 2012; Johnson & Grayson, 2005; Li & Miniard, 2006; Morhart et al., 2015; Reynolds-McIlnay & Morrin, 2019; Sichtmann, 2007; White & Yuan, 2012;), willingness to pay higher prices (Resnick, et al., 2006), and to be loyal (Chaudhuri & Holbrook, 2001; Ding, Veeman, & Abamowicz, 2013; Harris & Goode, 2004; Paulssen, Roulet, & Wilke, 2014). More trusted brands and other advocates have an advantage when promoting their products in ways that persuade consumers (Aguirre et al., 2015; Bleier & Eisenbeiss, 2015; Klucharev, Smidts, & Fernandez, 2008; Ohanian, 1990; Payan & McFarland, 2005; Vlachos et al., 2009). Public trust is needed for apparently risky technologies, such as nuclear power, to be accepted (Slovic, 1993; 1999). New technologies – from driverless cars to smart speakers – may be reliant on new and different trust relationships (Botsman, 2017), especially if they depend on the secure management of personal data (Chakravorti, Bhalla, & Chaturvedi, 2018), and as the pace of innovation and product development intensifies customers have to be won again and again to trust new products (Lampel & Shamsie, 2000). As companies increasingly make ethical or

environmental claims, on top of claims about their product's quality, consumers must judge the veracity of these too (Atkinson & Rosenthal, 2014).

Together, this means that marketing and communications practitioners are frequently asked to increase public trust in a company and its products. They might even create a specific strategy that is designed to build trust. For example, when Dave Lewis became CEO of the UK's largest retailer, Tesco, in 2014¹, he set out a turnaround strategy around three pillars, the third of which was focussed on trust (Tesco, 2014) and, as he approached the end of his time as CEO, Lewis reported back to the market on the shift in consumer trust he had achieved (Tesco, 2019). Many trust-building strategies can be expected to focus on marketing (Li & Miniard, 2006), or on Corporate Social Responsibility (Du, Bhattacharya, & Sen, 2010; Ellen, Webb, & Mohr, 2006). But businesses can pursue different routes to consumer trust. For example, Dave Lewis cited "a lot of pricing inconsistency" that was "eroding trust perhaps more than anything" and led him to "dramatically [reduce] the number of price changes in our store" (Tesco, 2015, p.4). At the same time, Lewis has talked a great deal about trust in Tesco's supplier relationships (Lewis, 2016). This suggests that the keys to unlocking trust for some businesses might lie in unexpected places.

Despite, or perhaps because, of how complex the question is, practitioner experience suggests that there is no well-established road map to identify the most effective trust-building strategy for a business. In 2002, Sirdeshmukh, Singh and Sabol, directed researchers to focus on questions that included "How can firms build trust?" (p.32) in *The Journal of Marketing*. Fifteen years later, Pirson, Martin and Parmar (2017, p.1) noted that "research in the area of

¹ Throughout this time, the author's employer has been an adviser to Tesco, and the author has worked on several projects for the company.

stakeholder² trust in business is nascent; therefore the trust formation process has been rarely examined at the stakeholder level”. As the following literature review will argue, despite its great breadth, the academic management and marketing literature still does not provide a clear, actionable answer to Sirdeshmukh and colleagues’ question, and “scholars have little insight to offer business leaders with respect to such questions” (Wicks, Moriarty, & Harris, 2014, p.4). This lack of well-developed insights for trust-building practice stands in contrast to the situation where a business has somehow lost trust during a crisis. Gillespie and Dietz (2009) propose a model to rebuild lost trust based around three core elements: diagnosis, intervention, and evaluation, rooted in a body of research on how trust is rebuilt after it has been broken (Ferrin et al., 2007; Kim, Dirks & Cooper, 2006; Kim, Dirks & Cooper, 2009). But these models start from a response to a trust-breaking incident (Poppo & Schepker, 2014; Tomlinson & Mayer, 2009), making them less helpful to businesses who suspect they are broadly trusted, or that they have lost trust in numerous small incidents over many years.

In order to conduct an effective diagnosis and evaluation, companies need to be able to measure consumer trust. Practitioners and academics are both reliant on survey measures that ask consumers whether they agree or disagree with statements like “This is a company I trust”. However, as discussed in the literature review below, such measures miss out a defining element of trust: the concept of taking a risk and making yourself vulnerable. A risk-based measurement approach is, however, widely used when behavioural scientists and experimental economists measure interpersonal trust, generally using variants on Berg, Dickhaut, and McCabe’s (1995) ‘trust game’ (Johnson & Mislin, 2011). The commercial advantages of being trusted that are described above all connect to a customer’s willingness

² They look at two specific stakeholder groups: potential customers and potential employees (Pirson, Martin & Parmar, 2017).

to make themselves vulnerable, for example, by paying for a product on the basis of advertising rather than experience or handing over their personal data to a company. But, as far as the author is aware, no attempt has ever been made to incorporate risk-taking into measures of consumer trust.

Even if the measurement and evaluation problem is put to one side, what should a business do to increase consumer trust? As Harris, Wicks, and Moriarty (2014, p.362) argue “both executives and researchers... need to better understand how to ‘move the dial’” on questions of public trust, and to do so they need have a good understanding of how consumers come to make trust judgements. The available models in the economics, management and marketing literature are discussed in the literature review below. Specific interventions that are proposed and evidenced by the literature are clustered around these different models.

Outside of these models, there has been a surge in behavioural science research on interpersonal trust in recent years³ (see reviews such as Balliet & Van Lange, 2012; Evans & Krueger, 2009; Fehr, 2009; Johnson & Mislin, 2011) so that the science of trust in business is “in its infancy” by comparison (Pirson, Martin, & Parmar, 2017, p.2) This interpersonal trust literature could be a rich source of novel potential interventions to help companies that wish to build trust with their consumers, and so is explored in depth below. In this paper, a new model of consumer trust-building is set out, rooted in this work and the broader theory of

³ Many other studies, not discussed here, focus on interpersonal differences in the propensity to trust (for example, Croson & Buchan, 1999). Given that businesses cannot easily choose their potential customers, these differences are not the focus of this review. Research has been conducted on differences between trustees, but ones that have no obvious organisational analogue (for example, Gervais, Shariff, & Norenzayen, 2011; Rezlescu et al., 2012). There is also a vast literature on reciprocity (for example, McCabe, Rigdon, & Smith, 2003), but the focus of this paper is on the consumer as the first-mover – the trustor – who puts the company in a position to reciprocate. How the company might do so in an optimum way is too large a question to fully address here, although the idea of reciprocity is discussed in connection with some of the trust-building models described below.

dual process models of cognition. The ambition is to allow for the integration of the insights from this research agenda to be built into a new series of practitioner interventions.

The remainder of this chapter, after introducing the key concepts, focusses on reviewing the literature around trust measurement and approaches to increasing trust. Chapter 2 then describes a correlational piece of research designed to trial a new consumer trust measurement tool which incorporates risk-taking. Chapter 3 describes an experimental study which tests a set of potential interventions in a consumer trust context, both to understand their potential viability and to test hypotheses based on the dual-process model of trust formation. Chapter 4 discusses how this evidence can underpin a consulting model that can be applied in many different business organisations. Finally, Chapter 5 offers some conclusions and directions for future research.

TRUST IN A CONSUMER CONTEXT

Trusting a company?

We cannot fully predict the behaviour of other people. As a result, we might seek to be entirely self-reliant in our economic activity. In doing so, however, we would miss out on a vast array of potential benefits that could come from collaborating with others (Arrow, 1972; Ostrom, 2003). Instead, we often make ourselves reliant on the actions of another. This reliance is the most common theme in the many different definitions of trust which have been used across disciplines as varied as philosophy, psychology, economics, sociology, marketing and management (Bhattacharya, Devinney, & Pillutla, 1998; Castaldo et al., 2010; Das & Teng, 2004; Deutsch, 1958; Kee & Knox, 1970; Rousseau et al., 1998). Often, by putting ourselves in this trusting position, we can achieve something advantageous, if everything turns out as hoped. For example, we run the risk of ending up with a “lemon” when we buy a used car, but we hope for a great bargain (Akerlof, 1970). How confident we feel in our purchase, and whether we make it at all, depends crucially on how much we trust the seller.

Much writing about trust focuses on the case where trustee and trustor are peers⁴. Such interpersonal trust is directly relevant when we think of trust between members of society (e.g., OECD, 2017a) or trust between colleagues inside an organisation (e.g., Colquitt et al., 2011). Increasingly, peer-to-peer business models, such as eBay, rely on us to trust others who are in the same situation as us (Mazzella et al., 2016). Sometimes a model economy,

⁴ When we talk about trust we usually mean risk-taking where one person relies on another in a way that is manifest to the trustee (Pettit, 1995). Bohnet and colleagues have shown that behaviour is very different when a risky task is dependent on another person, and when it is dependent on impersonal chance, even when the probabilities of success are the same (Bohnet et al., 2008; Bohnet & Zeckhauser, 2004).

using similar peers, can help to identify underlying dynamics with a wider relevance (for example, Aghion et al., 2010).

However, the focus of this investigation is not on interpersonal trust but on a consumer's trust in a company. This is distinct from the important question of trust *within* a business or other organisation— i.e. between colleagues, or between managers and workers (as represented, for example, in Creed & Miles, 1996) – although the consumer trust literature often borrows concepts from the study of interorganisational and intraorganisational trust (for example, in Schlosser, Barnett White, & Lloyd, 2006). It is also distinct from trust in business overall, as a sector or an institution, though of course one's level of trust in business overall may be a starting point from which to make judgements about the trustworthiness in specific businesses (Harris & Wicks, 2014).

There is an important difference between the idea of trusting a business, and the idea of trusting the people who work in a business. Legal scholars Henderson and Churi (2019) note the importance of the 'legal fiction' of the corporation in allowing people to participate in trust relationships that run well beyond their own local experience:

“If you've ever taken a bite of a hamburger at a fast-food joint, sipped a Coke, pumped gasoline into your car, or bought anything online, you have trusted a business. More specifically, you have trusted in individuals you've never met because of the existence of a business standing in between you and them. After all, there is no such thing as McDonalds, the Coca-Cola Company, ExxonMobil, or Amazon. These are just labels we use to describe individuals of all sorts – employees, investors, suppliers, lenders, and so on – cooperating together for a specific objective.” (p.36).

There are commercial interactions that are still interpersonal: for example, when employing a sole trader to do some work on a house (Nooteboom, 2002). But in most consumer interactions today, we take risks connected to those large legal fictions. Even when we can look the McDonald's employee in the eye over the counter, we are trusting that the training and incentive structure created by the company will mean we receive a tasty, safe meal, rather than just relying on the goodwill of that individual person.

The problem of unobservable product quality can be analysed through the prism of trust (Kirmani & Rao, 2000; Nelson, 1974). Often this is thought of from a product perspective: some products can be inspected and aspects of their quality, like an ugly design, can be determined pre-purchase (Erdem & Swait, 1998). Many, perhaps most, products and services are not like this, however: whether it is the film that promises to entertain you (Lampel & Shamsie, 2000), the lawyer that promises to win your case, the hairdresser that promises the latest style (Weigelt & Camerer, 1988), or the car that you hope won't break down (Thomas et al., 1998), the quality is only going to be clear to you after you have handed over your money.

However, in all these situations, we aren't *trusting* the – often inanimate – product. The counterparty – the trustee – is actually the company selling the product: what is in question is the trustworthiness of the company - or, in more marketing terminology, the brand's credibility (Erdem & Swait, 1998). When I scratch off the front of a lottery scratchcard, I'm taking an impersonal risk on whether or not my numbers come up – and because it is impersonal, that risk-taking is not an act of trust. But when I bought the scratch card, I did

engage in an act of trust towards the lottery vendor: I am trusting that they run an unbiased game, will pay-out if I win, and so on.

Product quality is not the only thing that we might be trusting companies over: in many trust situations, our trust is multifaceted, depending on the nature of the vulnerability involved (Lewicki, McAllister, & Bies, 1998). While we might try to restrict our trust in a company to certain domains, trust cannot be completely domain-specific for the same reason that contracts must always be incomplete (Ouchi, 1980): the uncertainty that makes trust necessary. I trust Amazon to deliver my packages on time, to prevent anyone from seeing my credit card details; I trust that Alexa will tell me the correct weather and won't record my private conversations. I trust that they will react in some appropriate way if an unforeseen crisis stops them from delivering my package. Of course, I may trust Amazon more with some of those tasks than others. But it seems sensible to expect that these decisions will be linked: that if my packages never arrived, I might start to worry about whether my credit card details are safe. If it is possible to draw these links across multiple interactions, then it is worth considering our relationship with Amazon overall, and how much we trust it (Dwyer, Schurr, & Oh, 1987; Fournier & Alvarez, 2012). This concern for the trusting relationship, over the individual instances, is a theme in the managerial discussion of trust (including, for example, Nettleton, 2019) and echoes a similar approach in considering interorganisational trust (Barney & Hansen, 1994).

Different definitions of trust

At the level of a commercial transaction, there is no observable difference between a trusting behaviour, and one that is not excessively *distrustful*, nor between one that has been considered deeply, and one that is spontaneous. Either way, I either purchase the used car or I don't. But many definitions of trust make the "psychological state" of the trustor a crucial element of what defines trust (Rousseau et al., 1998, p.395). Often, it is helpful to be able to talk about trusting beliefs or intentions (Kim, Dirks & Cooper, 2006; McKnight, Cummings, & Chervany, 1998). But this means that the definition of trust must include something of what is happening in a trustor's mind when they make themselves vulnerable.

For some authors, trust is risk-taking based on a deliberate and strategic consideration of what the trustee will do (Bhattacharya, Devinney, & Pillutla, 1998; Hernandez-Lagos & Minor, 2015). From this perspective, trust is like any other risky decision, except that the risks stem from the reliability of the trustee (Das & Teng, 2004). It has also been further specified as "trust in reciprocity" (Bellucci et al., 2017, p.1234), emphasising the need to calculate, predict, and understand the trustee's intentions (Doney & Cannon, 1997). In accounts of this sort, the idea that trusting is the normatively superior action is rejected (Flores & Solomon, 1998; Hardin, 1996). In this vein, trust is contrasted with "confidence" - equivalent behaviour that is produced without consciously acknowledging or reflecting on the "possibility of disappointment" (Luhmann, 1988, p.97).

However, other authors argue the opposite, viewing trust as a leap of faith that by definition goes beyond the evidence and calculation of interest (Carpenter, Daniere, & Takahashi, 2004; Lewis & Weigert, 1985; Rempel, Holmes, & Zanna, 1985; Ring & Van De Ven, 1992; Sabel, 1993; Williamson, 1993). In this telling, trusting actions based on knowledge of your

partners' incentives are just "assurance", while "real trust" expects trustees to go beyond self-interest (Nooteboom, 2002, p.48-49). This can be taken to the point of being "blind trust" (Flores & Solomon, 1998). Trust can then be contrasted with distrust as two distinct dimensions (Sitkin & Roth, 1993), with distrust an equally "blind" assumption that the trustee is suspect and unreliable (Bachmann & Hanappi-Egger, 2014; Lewicki, McAllister, & Bies, 1998).

How can we resolve these conflicting viewpoints? Interpersonal trust studies do not provide a conclusive answer: finding that trust behaviour can be changed both by changing the strategic incentives (for example, Bracht & Feltovich, 2007) and changing to the normative status of different acts (for example, Bicchierri & Mercier, 2013; Dunning et al., 2014). Mal, Davies, and Diers-Lawson (2018) attempt to answer the question in the corporate context by examining how consumers talk about trust in brands during semi-structured interviews, finding that the themes in discussions of brand trust and brand distrust tend to be similar, and do incorporate some consideration of risk.

A resolution can be engineered by subdividing the concept of trust (Dunning, Fetchenhauer, & Schlosser, 2012; Hardin, 2003; Uslaner, 2013). Reflecting the two different views summarised here, Dunning and colleagues propose that trust can be either "expressive" or "instrumental". The key difference is the consideration of trust's consequences beyond the act of trusting itself, whether minutes or years later. Where this consideration of consequences is present, trust is instrumental. By contrast, expressive trust is based on the "immediate 'payoff' they receive once they perform the action [of trusting]", for example, feeling good about oneself because you have made the normatively desirable or socially approved choice (p.690).

This provides a practical way forward that is easily applied in a consumer context. For the purposes of this paper, trusting behaviour is behaviour which makes a consumer vulnerable to the actions of a company (Das & Teng, 2004). Using Dunning and colleagues' (2012) labels, trusting beliefs, expectations or intentions are expressive if the act of expressing those beliefs is immediately sufficient in itself, while they are instrumental if they involve some kind of strategic assessment of the best approach given the likely response of the trustee. Either way, the content of those trusting beliefs or expectations are defined by Ben-Ner and Haroldsson (2010, p.65) as:

“... a multifaceted expectation or belief by A that: (1) B will not take advantage of the situation to make a gain while imposing a loss on A, (2) B will not act maliciously towards A, (3) B will be willing to make small sacrifices for A, and (4) B is competent to act favorably towards A.”

HOW IS CONSUMER TRUST MEASURED?

The challenge for approaches using survey items to measure trust

Being able to measure trust is crucial to any consulting model, and is also a topic of growing practitioner interest: for example, following an independent review, members of the Australian Banking Association agreed to publish performance indicators to demonstrate progress in rebuilding consumer trust (McPhee, 2018). Practitioners commonly evaluate public trust in a company with surveys that ask participants whether they agree with statements like “This is a brand I trust” (e.g., Appleton, 2014; Sterne, 2010). Facebook has recently started to use a similar approach when asking users to rate different news sources (Zuckerberg, 2018). In management and marketing studies the approach is similar, albeit often with more items, asking for agreement with statements such as “This brand delivers what it promises” (Erdem & Swait, 2004).

These measures are used because, as Rao, Qu, and Ruckert (1999 p.263) put it, “measuring the perceived quality of unobservable attributes is infeasible”. Some authors go so far as to argue that “trust cannot be objectively measured as it is only sensed by individuals. Therefore collecting self reported data (e.g., through a questionnaire, as in our case) is the only means to measure trust” (Calefato, Lanubile, & Novielli, 2015, p.475). Similar measures have been designed to the represent models or aspects of trust that are discussed later in this chapter, including perceptions of ability, benevolence, and integrity (Davis et al., 2000; Ingenhoff & Sommer, 2010; Mayer, Davis, & Schoorman, 1995; Schlosser, Barnett White, & Lloyd, 2006) and cognitive and affective trust (McAllister, 1995).

One objection to all of these existing measurement approaches is that they fail to measure trust, or at least they fail to measure a crucial element of trust. As discussed above, definitions of trust commonly include some element of risk-taking or vulnerability (Castaldo et al., 2010; Das & Teng, 2004; Kee & Knox, 1970; Mayer, Davis, & Schoorman, 1995; Rousseau et al., 1998). The inclusion of some element of risk in a situation – even if it is only minor or hypothetical – has been found to affect the importance of trust or trust-related perceptions to decision-making (Balliet & Van Lange, 2012; Paulssen, Roulet, & Wilke, 2014; Rafaeli, Sagy, & Derfler-Rozin, 2008; Schlosser, Barnett White, & Lloyd, 2006). Even when survey items are deliberately designed to reflect a definition of trust based around willingness to be vulnerable (Mayer & Davis, 1995; Schoorman, Mayer, & Davis, 2007), the participants do not take any kind of risk when they answer them (Bogliacino, Grimalda, & Jimenez, 2017).

This is a minor problem if these measures correlate well with behavioural evidence of making oneself vulnerable to others. For the practitioner, if consumers' willingness to make themselves vulnerable, for example, by adopting a new technology, is predicted by these attitudinal measures, then there is no need for any additional measurement. However, there is substantial evidence that trust as measured in standard survey items cannot be assumed to correlate with trusting behaviour in risky or ambiguous conditions. Surveys covering participants' trust in others have repeatedly produced different trust levels from experiments on interpersonal trust behaviour conducted with the same participants (Ashraf, Bohnet, & Piankov, 2006; Bellemare & Kroger, 2007; Ben-Ner & Halldorsson, 2010; Ermisch et al., 2007; Glaeser et al., 2000; Holm & Nystedt, 2005; Johansson-Stenman, Mahmud, & Martinsson, 2009; Karlan 2005; Lazzarini et al., 2004; O'Higgins, Mazzioni, & Sbriglia, 2018; Samson, 2018; Sapienza et al., 2007; Wilson, 2018; for contrary evidence, see Fehr et

al., 2002; Johnson & Mislin, 2012; McEvily, Radzevick, & Weber, 2012). This mismatch has also been observed in other contexts: people who say they trust their leaders might be expected to be willing for those leaders to use their own judgement to decide complex policy issues. However, one study found that respondents who say they are more trusting are more likely to demand that their politicians stick closely to the mandates they have been given and do not overrule these with their own judgement (Sigelman, Sigelman, & Walkosz, 1992).

A mismatch between attitudinal statements and behaviour often comes down to the limited correspondence between the attitude elicited and the specific behaviour analysed (Ajzen & Fishbein 1977; McEvily, Radzevick, & Weber, 2012). On one hand, trust behaviour might not be solely driven by a belief that the counterparty is trustworthy – other factors might also play a role, such as appetite for risk (Li, Turmunkh, & Wakker, 2019; McEvily, Radzevick, & Weber, 2012). But it could also be that the standard measurement approach only reflects expressive trust, and ignores instrumental trust – and this might partly explain the apparent disconnect with interpersonal risk-taking behaviour. For this reason, these survey item-based measures, like “This is a brand I trust”, will be called expressive trust measures in this paper.

The potential of field or hypothetical behaviour-based measures

Restricting ourselves to examining consumers’ trusting behaviour in the field could side-step the questions raised about surveys as measures of trust. For example, the OECD (2017b) has suggested that consumption of bottled water might be used as a way of directly measuring trust in the water supply. Field experiments have been conducted to look at interpersonal consumer-to-consumer selling (Elfenbein, Fisman, & McManus, 2012; Resnick et al., 2006) or peer-to-peer lending (Duarte, Siegel, & Young, 2012). But at the level of the consumer

brand, there are huge potential confounds: if sales of *Evian* go down, that could be because the public water companies are more trusted, but it could be for a host of other reasons too. While many economic interactions have an element of trust, as argued in the famous Arrow (1972) quote that opens this chapter, few are *only* about trust. We could, for example, imagine a bank that offers to hold our money in its vault. In that case, we are only trusting the security of the vault and the willingness of the bank to honour its commitments. But as soon as the bank starts paying out interest or offers us some sort of easy payment facility, it is offering value on other dimensions other than trust. That prevents us from saying that the bank with more savings deposits is necessarily always more trusted than its competitors.

An alternative approach has been to ask hypothetical questions, where participants say what they would do in different realistic situations (in a consumer context, Buskens & Weesie, 2000; Morhart et al., 2015; Pirson et al., 2014, 2017; Schlosser, Barnett White, & Lloyd, 2006; in an interpersonal trust context, Brooks, Dai, & Schweitzer, 2015; Buchan & Croson, 2004; Montano et al., 2017; Veszteg, Funaki, & Tanaka, 2015). In the arena of political and social trust, participants have been asked to estimate how likely they think different trust-violating events are to occur: for example, answering on a scale of likelihood, “If a member of [country’s parliament] were offered a bribe to influence the awarding of a government contract, do you think that the member of parliament would accept the bribe?” (OECD, 2017b, p.206). Chaudhuri and Holbrook (2002) ask for similar estimates of risk in a consumer product. Obviously, this only incorporates the idea of risk-taking if participants embrace the fiction and believe their answers have some consequence. Comparisons between hypothetical and real interpersonal trust experiments suggest that they do not do this consistently (Holm & Nystedt, 2005).

Other alternatives to measuring trust try to measure the degree to which people associate a target with the concept of trustworthiness. The association can be measured in the speed with which people sort words in an implicit association test, with the implication that if participants quickly place the word trust alongside a target, then they must associate the target with the idea of trust (Murtin et al. 2018). Or it can be measured in the degree to which participants make a logical error, the conjunction fallacy, that implies they associate the target with being untrustworthy (Gervais, Shariff, & Norenzayan, 2011). While these are measures of behaviour, they are more properly thought of as measures of behaviour associated with trusting beliefs, rather than of trusting behaviour, as they still do not involve any risk-taking on behalf of the participant.

The Trust Game

“A revolution in experimental economics” (Murtin et al., 2018, p.17) has created games that incorporate risky decisions into the measurement of interpersonal trust (Bogliacino, Grimalda, & Jimenez, 2017; McEvily, Radzevick, & Weber, 2012). The most prominent⁵ attempt to incorporate risk-taking into a measure of trust has been the trust or investment game (Berg, Dickhaut, & McCabe, 1995). In this game, Player A is endowed with some money and can choose to transfer it to Player B. What Player A transfers is tripled, but Player B decides whether or not to return any of this to Player A. Player A’s transfer is considered a measure of A’s trust in B (Camerer, 2003). Variations on this game have now been used in scores of experimental designs (Johnson & Mislin, 2011), both in the lab and as part of

⁵ A number of alternative methods have been trialled which follow Berg, Dickhaut and McCabe’s (1995) introduction of risk into the measurement: for example, the “envelope drop” game (Glaeser et al., 2000), testing which advisers are consulted in a virtual maze (Hale et al., 2018), or offering participants a chance to pay to reduce their exposure to the decisions of another (McEvily et al., 2012).

nationally representative surveys (Bellemare & Kroger, 2007; Ermisch et al., 2007; Fehr et al., 2002). The two-stage design means that Player B has complete information when they make their decision to be trustworthy or not. This means it is possible for Player A to focus her attention entirely on the question of whether B will repay the money or not, ensuring that the game is more focussed on trust than prisoner's dilemma designs that were used in early research on trust (for example, as used by Deutsch, 1958), where there is a large element of coordination needed even between 'trustworthy' players who would want to cooperate if possible (Kee & Knox, 1970). Because it incorporates genuine risk-taking for the experimental participant, these approaches will be referred to as risk-based measures of trust.

Few have seen a way of applying a risk-based measure of trust to organisations and institutions (OECD, 2017b). The only example I am aware of is to hold trust games where Player B (the trustee) is an employee of a particular public body (Carlsson et al., 2018). This provides compelling insight, but only into trust in the average employee of an organisation - not in the organisation as a whole. The trustworthiness of the average employee might be an important variable, for example, if we are considering questions of corruption, but is less relevant in most consumer contexts. In a consumer context, the trustworthiness of a whole organisation, and its top decision-makers in particular, is usually the more important question.

Using Dunning and colleagues' (2012) terminology of "expressive" trust and "instrumental" trust helps clarify the potential of a risk-based measure of trust, such as the trust game. The standard measures of trust based on survey items can only ever reflect expressive trust, because they do not include any prospect of wins or losses to be instrumental about. A risk-based trust measure, like the trust game, can reflect *both* expressive trust and instrumental

trust (Dunning, Fetchenhauer, & Schlosser, 2012). For example, Player A might make a large transfer in the trust game because of the substantial gains to be had from trusting, or because they wish to show respect towards Player B (Dunning et al., 2014; Schlosser et al., 2015). In that sense, the risk-based measure captures a larger definition of trust, and one that reflects the many potential reasons to trust that might exist in the real world.

The range of factors which might influence behavioural measures of trust can, however, be a disadvantage: it makes it difficult to disentangle the instrumental and expressive trust in risk-based decisions (Dunning, Fetchenhauer, & Schlosser, 2012). Authors repeatedly ask whether the transfers in the trust game can really be considered to represent trust if they reflect social preferences such as altruism or inequality aversion (Cox, 2004), an obligation to trust (Buchan, Croson, & Solnick, 2008) or showing respect to the trustee (Dunning et al., 2014). A purely instrumental view of trust would have to reject transfers based on such preferences. However, by taking the view that trust can be both expressive and instrumental, these objections become less problematic. In addition, these criticisms might be less relevant in the context of large, corporations seeking to win the trust of their consumers, where we might not expect strong social preferences that lead to greater trust – indeed, some authors argue that the “societal narratives about business tend to be overwhelmingly negative....[ensuring that] people are generally quite sceptical of business... particularly when it comes to integrity and goodwill” (Harris & Wicks, 2014, p.197).

Das and Teng (2004) divide the vulnerability involved in a trusting action into two categories: “relational risk” where the risk is in the choices of the trustee, and “performance risk” i.e. their ability to carry out a task even if they choose to. A clarifying example in a corporate context might be when we hand over our personal data to a company: there is a

relational risk that they sell the data on without our permission, and a performance risk that their security systems are breached and the data is stolen. In the classic trust game, proposed by Berg and colleagues (1995) the risk only stems from the choices of the trustee i.e. the relational risk. However, performance risk can be easily incorporated into the trust game by allowing trustors to take risks based on the performance of trustees: for example, betting on how accurately a trustee will estimate the number of rocks in a jar (Harris, Wicks, & Moriarty, 2014) or selecting one representative to answer trivia questions that could win our team a prize (Brand & Mesoudi, 2019).

A criticism of the trust game is that it reflects preferences for risk: suggesting those who transfer larger amounts are better thought of as gamblers, rather than trustors (Eckel & Wilson, 2004; Karlan, 2005). This is a similar objection to the idea that instrumental thinking does not belong to trust decisions (Sabel, 1993; Williamson, 1993). Again, if we allow trust to take expressive or instrumental form then this criticism becomes less problematic. In a consumer-to-business context, the objection also seems less relevant: the distinction between trusting a company and taking a risk on a company seems to collapse in many contexts: for example, when trying a new product or choosing to invest.

Another criticism is that experimental measures of trust have little external validity (Nannestad, 2008), a charge that has been levelled more broadly at experimental games for many years (Lewis & Weigert, 1985). Galizzi and Navarro-Martinez (2017) make this critique of a number of experimental economics techniques, although they also find that behaviour in a trust game is correlated with being willing to donate to an unfamiliar charity, which others have considered a trusting behaviour (Rafaeli, Sagy, & Derfler-Rozin, 2008). The question can only be fully resolved in the consumer-to-business context by comparing

field data with any new measure of risk-based trust in a company, which is very challenging. In Chapter 2, below, the risk-based measure of trust is examined alongside a measure of behavioural intentions, but this is clearly not the equivalent of “real world” observations. The point is picked up again in Chapter 5, as a potential avenue for future research.

Measuring trust – or measuring positivity?

Whether a risk-based or more standard expressive measure is used, one of the trickier problems in this area is to distinguish trusting from liking. The two concepts are distinct (Nicholson, Compeau, & Sethi, 2001; van der Merwe & Puth, 2014), with the latter sometimes referred to as “brand affect” (Chaudhuri & Holbrook, 2001, 2002; Sung & Kim, 2010). For companies, being liked is likely to be profitable for different reasons to being trusted. At an interpersonal level, people can feel less favourable towards those they see as more intelligent than them (Jonason & Hughes, Forthcoming), but these more intelligent types might be worth trusting, at least for certain intellectually demanding tasks. It seems plausible to imagine a company that is trusted but disliked, or one that is liked, but not trusted (Power, Whelan & Davies, 2007).

Mercier (2020) also raises the intriguing possibility of behaviourally-relevant and behaviourally-irrelevant beliefs, where a person might agree that they believe, for example, in a conspiracy theory about an ethnic group that they dislike, but do not act as if they genuinely thought these beliefs were true. In his example, people who spread antisemitic rumours of Jews kidnapping gentiles do not rush to the police to report their concerns in the way they would if they genuinely thought people in their town were up to no good. In a business context, we could imagine a similar mismatch between survey responses that condemn a

disliked business and consumer behaviour that implies some level of trust; for example, if people were to agree in a survey with a statement like ‘Technology companies are happy to spy illegally on people’ while also not removing every device with a microphone from their home.

Given the apparent ubiquity of the “halo effect” (Cooper, 1981), we should expect some correlation between liking and trusting. For example, more attractive players can receive more in the trust game (Wilson & Eckel, 2006; Winkielman, Olszanowski, & Gola, 2015). But to understand trust, measurement approaches need to find a way of isolating trust from overall positivity or attraction. When examining international trust attitudes, Bottazzi and colleagues (2016) looked at Eurobarometer data on the degree of trust in people from different European countries but felt it necessary to include a control variable that represented positive feeling between countries to try to avoid having their analysis confounded⁶.

In the management and marketing literature, the standard measures of trust are often very strongly correlated with measures of positivity or brand affect: from $r=.59$ (Chaudhuri & Holbrook, 2002); $r=.66$ (Chaudhuri & Holbrook, 2001); $r=.75-.80$ (Nicholson, Compeau, & Sethi, 2001), $r=.79$ (Sung & Kim, 2010) to $r=.89$ (Lau & Lee, 1999). Halos have also been found to spread from a relational-risk question to a performance-risk question, when using both risk-based and expressive techniques (Harris, Wicks, & Moriarty, 2014). This raises the suggestion that a trust measure with greater discriminant validity vis-à-vis liking could have some greater practitioner value – or, to put it another way, that a cost-conscious practitioner might abandon trust measurement altogether unless it tells them something different from a measure of overall positive feeling towards the brand.

⁶ Ingeniously, they use public votes cast in the Eurovision Song Contest.

HOW TO INCREASE TRUST IN A COMPANY?

Practitioners need to know what they can do – if anything – to increase trust in a company.

An exhortation to increase trust, without specificity on how, has little practitioner value (Butler, 1991; Cho & Ringquist, 2011; Pirson & Malhotra, 2011). And, just as a mechanic needs to know how a car works to fix it, a consultant needs a model of what causes consumer trust, in order to increase it. The models of McAllister (1995) and Mayer and colleagues (1995) have come to dominate academic discussion in management and marketing (Baer & Colquitt, 2017). Both were originally developed to understand organisational trust, often based on the latest psychological and sociological literature at the time, and have been more recently adapted to consumer trust (e.g., Schlosser, Barnett White, & Lloyd, 2006). However, more contemporary psychological, behavioural, and experimental economics research has led to further insights into trust-building at the interpersonal level (Evans & Krueger, 2009; Fehr, 2009), which has sometimes been drawn into the marketing and management context (e.g., Benedicktus et al., 2010). In addition, economists and especially game theorists, have considered the question of trust in economic interactions from more of a rational choice viewpoint (e.g., Arce, 2006), and these findings have sometimes been tested in experiments (e.g., Slonim & Garbarino, 2008).

To compare these different perspectives and understand where their predictions might differ, four key differences are analysed in the forthcoming discussion:

- *Company heterogeneity.* The degree of difference amongst trustees – in this case, companies or brands.

- *Company trust antecedents.* The specific attributes of the company that lead to increased trust.
- *Processing style(s).* The way that the trustor's trusting beliefs or intentions are influenced by the trust antecedent.
- *Process-style determinant.* If there are different processing styles potentially at work, what determines which one is more important.

Using these difference, it is possible to categorise the different approaches into four stylised models: a “classical liberal” model of trust where only the incentives created by the environment matter; a “type-signalling” model where there are some trustworthy companies and they must try to signal their trustworthy status to consumers; a model I have labelled “affective/relational” where the consumer sometimes makes a considered judgement and sometimes an affective reaction, especially when in a close relationship; and finally a model based on dual-processing approaches to cognition which, in honour of Kahneman (2011), could be called “trusting fast and slow”. It is in this last model where processing styles and the determinants of those styles play an important role in determining the predictions of the model, and therefore on the best interventions for particular contexts. These models are summarised in Table 1.1 and explored in depth in the subsequent sections.

Each of the different trust-building models suggests particular areas where a practitioner might make a successful intervention to increase trust. This allows us to link specific models to successful interventions to increase consumer trust, albeit that there are not that many (Morhart et al., 2015; Schlosser, Barnett White, & Lloyd, 2006; Van Boom, Desmet, & Van Dam, 2016; Waytz et al., 2014). But, perhaps more usefully, the large number of findings from the interdisciplinary literature on trust can also be grouped based on the trust-building

model they fit with. There may be some ‘nesting’ within the lists given here: for example, the ‘trusting fast and slow’ model detailed below would expect that the interventions that involve trustors making complex inferences, either in the classical liberal or type signalling model, could be successful, but only when consumers are able and motivated to make such inferences.

Authors often note the implications of interpersonal studies for the business world, but few replicate their studies in this context (for example, Arce, 2006; Kim et al., 2013; Zurn & Topolonski, 2017). There are reasons to think that a consumer context may be very different: for example, trustees act differently when dealing with groups rather than individuals (Holm & Nystedt, 2010) and when there is a power imbalance between trustor and trustee (Kim et al., 2017).

The interventions presented here are not designed as an off-the-shelf menu. Each intervention needs careful development and testing, as discussed further in Chapters 3 and 4.

Nevertheless, by gathering potential inspirations for intervention around different models, we can help break down the question: if one model is shown to be more plausible than the others, then we might decide to focus on testing and developing the interventions associated with it.

Table 1.1 Stylised alternative models of trust-building

<i>Models of trust development and key authors</i>	<i>Company heterogeneity</i>	<i>Company trust antecedents</i>	<i>Process-style determinant</i>	<i>Processing style(s)</i>	<i>Intervention focus</i>
Classical liberal Hobbes, 1668/1994; Smith, 1763/1978; Akerlof, 1970	Identical	Trustee incentives	None	Inferential	Institution design, incentive changes (and, in the short run, the attention consumers pay to both of these)
Type-signalling Spence, 1973; Jensen & Mecking, 1976; Mayer, Davis, & Schoorman, 1995	Differ in terms of trustworthiness	Relevant trustee characteristics (e.g., ability, benevolence, integrity)	None	Naïve observation	Naïve signalling of relevant trustee type (e.g., high in ability, benevolence, or integrity)
				Inferential	Credible signalling of relevant trustee type (e.g., high in ability, benevolence, or integrity)
Affective / Relational McAllister, 1995; Morgan & Hunt, 1994; Lewicki & Bunker, 1996	Differ in terms of trustworthiness and other factors like the degree of liking and closeness of the relationship with the consumer	Positive feeling, also referred to as liking or brand affect	Close relationship, risk is relational	Affective-reaction	Increased liking/positivity/brand affect and homophily Maintaining a reciprocal relationship
			Close relationship, risk is performance		
			Distant relationship, risk is relational		
		Competence-related trustee characteristics	Distant relationship, risk is performance	Naïve observation	Naïve signalling of competence or ability Relationship-building to change the processing style used
Trusting fast and slow Chaiken, Liberman, & Eagly, 1989; Evans & Krueger, 2016; Kahneman, 2002; Murray et al., 2013; Petty & Cacioppo, 1986; Williams, 2001	Differ in terms of trustworthiness and other factors (e.g., degree of liking)	Relevant trustee characteristics (e.g., ability, benevolence, integrity)	Consumers are faced with difficulty or novelty or are more motivated than usual	Naïve observation	Naïve signalling of relevant trustee characteristics (e.g. high in ability, benevolence, or integrity)
				Inferential	Credible signalling of relevant trustee type (e.g., high in ability, benevolence, or integrity) Institution design, incentive changes (and, in the short run, the attention consumers pay to both of these)
		Irrelevant characteristics (e.g., degree of liking) and contextual factors	Consumers are in a default (low attention) situation	Heuristic	Irrelevant characteristics about the trustee, especially those associated with increased liking Manipulating the trustee context to change the processing style used

Classical liberal model and related interventions

The political philosopher Thomas Hobbes (1668/1994) helped to found modern liberal thought with his conceptualisation of a society of atomic individuals who have roughly equal abilities and an identical goal: their own self-interest (Moehler, 2009). In this view, at least in caricature, trust is only possible through the enforcement of a strong external actor (Akerlof, 1970; Hardin, 1996; Ostrom, 2003). Returning to the contemporary world of consumer trust, we can imagine a situation where regulators can punish brands that make false promises – in which case, trust in the company is possible, provided that the regulators are sufficiently vigilant and forceful (Jain & Posavac, 2001). The source of trust needn't necessarily be the state – provided it can monitor behaviour and exclude defectors, it could be a non-state body like a trade association that provides the seal of approval (e.g., Casado-Aranda, Dimoka, & Sanchez-Fernandez, 2019).

Outside of such regulation, there is also the potential for businesses to somehow bind themselves against the incentive to betray trust, like the celebrated story of Odysseus having himself tied to the mast to avoid the temptation of the sirens (Elster, 1984; 2000). A company could enter into a contract with a satisfaction guarantee (Akerlof, 1970; Andreoni, 2005), that changes what is in the trustee's self-interest, ensuring that the interests of the trustor and trustee are better aligned. As with Odysseus, trust is dependent on the strength of the ropes: if the new incentives can be easily changed back to the old ones, then they offer no basis for trust (Hardin, 1996). Note that such behaviour can also act as a signal – but this concept is captured in the following section on type-signalling.

Writing almost a century after Hobbes, the Scottish Enlightenment philosophers Adam Smith and David Hume advanced the idea that trust was possible because of the need to maintain a

good reputation (Bruni & Sugden, 2000). Hume suggests that the need to maintain one's moral reputation can mean it is in one's interest to keep onerous promises (Hume, 1740/1978). In Smith's telling, if an individual can specialise in some area of activity and acquire a reputation for doing it well, perhaps initially through free gifts, then they can make a living from this activity (Ashraf, Camerer, & Loewenstein, 2005). Then the rest of us can rely on the incentive to maintain that reputation (Akerlof, 1970; Kreps, 1993; Ostrom, 2003; Schelling, 1960). Fast forwarding to today, if customers avoid a brand with a bad reputation, then trustworthy behaviour can be in the company's self-interest (Nelson, 1974; Weigelt & Camerer, 1988). Instead of the sanction coming from the state, the untrustworthy company is punished as its customers go elsewhere. This requires two things: firstly, an effective reputation mechanism allowing untrustworthy businesses to be identified, and secondly, the existence of alternative competitors. As Bruni and Sugden (2000) note, Smith (1763/1978) identified the different market opportunities in England, Scotland, and The Netherlands as leading to different levels of "probity and punctuality" in different countries. At the extremes, a completely anonymous trader, by definition can't have a bad reputation, while a monopolist has, by definition, nothing to fear, although as Hill (1990) notes, a bad reputation in one market where a company is dominant, may still follow it into other markets where it is not.

All of these potential routes to trust require the trustor to understand the trustee's incentives and make inferences about their future behaviour. It is this strictly self-interested backwards induction that predicts a non-trusting Nash equilibrium for the one-shot trust game (Berg, Dickhaut, & McCabe, 1995). While this may well be possible, it is potentially quite cognitively demanding. For example, one trust game experiment found that a number of participants needed to see others' successful use of backwards induction in order to make the optimal choice to build a reputation for themselves (Bohnet, Harmgart, & Tyrna, 2005).

In this model, no company is inherently better than another: the executives at Coca-Cola are neither more skilled or nor more moral than their rivals at Pepsi. Nevertheless, a company can increase trust. Table 1.2 identifies a range of potential interventions that a company could make to build trust within this paradigm, based on a review of the multidisciplinary trust literature. It can deliberately change its own incentives – for example, by offering a guarantee – and this fits most neatly into this model of trust, but can tend towards the trivial. It can also affect the institutional environment, for example, by proposing a regulatory body that ensures all soft drinks are safe to drink; increasing trust, albeit for the whole sector rather than a particular business. Stretching slightly beyond the strict assumptions of perfect information and reasoning (von Neumann & Morgenstern 1944), we can imagine an intervention that seeks to assist the process of induction, for example, by reminding consumers that a market is competitive and that a good reputation is necessary for success. Such interventions might still benefit one company if they were sufficiently targeted, for example, if they were made just when a customer arrives at a Coca-Cola vending machine.

Table 1.2 Potential consumer trust interventions within a “classical liberal” model of trust-building

<i>Relevant findings</i>	<i>Research contexts</i>	<i>Author, Year of Publication</i>	<i>Potential interventions</i>
<i>Changing incentives</i>			
Offering enforceable guarantees increases trust	Experimental studies of interpersonal trust	Andreoni, 2005; Andreoni & Varian, 1999	Offering guarantees and communicating how they will be enforced by an external authority
Certification from an independent third party increases trust	An experimental study of consumer behaviour	Casado-Aranda, Dimoka, & Sanchez-Fernandez, 2019	Participate in credible certification schemes
<i>Increasing the salience of competitive and reputational reasons for trust</i>			
Ensuring that competition amongst trustees for scarce reputational benefits is present and visible increases trust	Experimental studies of interpersonal trust and trust behaviour on a peer-to-peer market websites	Abraho et al., 2017; Barclay, 2004; Bohnet & Huck, 2004; Bolton, Katok, & Ockenfels, 2004; Huck, Ruschala, & Tyran, 2006; Keser, 2003; Resnick et al., 2006; Slonim & Garbarino, 2008	Communicate the fact that the company faces tough competition and operates in a market where reputation matters, as well as encouraging reputation mechanisms such as online reviews
Trustors will trust more if they understand that the trustees’ interests and goals are cooperative (NB - this is different from sharing their values, as discussed below)	An experimental study of interpersonal trust and a correlational study of interorganisational trust	McCabe, Smith, & LePore, 2000; Sohn, 1994	Explain why being trustworthy is good for the business
The fact that reputational information is available, at some cost, increases trust	An experimental study of interpersonal trust	Duffy, Xie, & Lee, 2013	Communicate the fact that key information is available, rather than the information itself

Eponymous companies (like McDonald's) are more successful, especially if the name is unusual, with the inference that this is because of the extra incentive to maintain a good reputation	Analysis of a large dataset of company performance	Belenzon et al., 2017	Use an unusual or eponymous corporate name
Membership of a brand (e.g., a chain) is associated greater demand as bigger brands have more at stake from reputational damage and so will provide higher quality	Theoretical model and analysis of a hotel industry data	Chung & Kalnins 2001; Shapiro, 1983	Maintain, join and grow membership of a wider brand or chain
Trustees that have made a long-term commitment to a relationship or situation are more trusted than those who seem that they could 'disappear overnight'	Experimental studies of consumer trust and a correlational study of interorganisational trust	Benedicktus et al., 2010; Buskens & Weesie, 2000; Sako & Helper, 1996	Companies should put down physical roots, offer long term contracts, and suggest in marketing and communications that they intend to continue to serve customers long into the future

Type-signalling model and related interventions

The modelling of information in the economy has been described as “perhaps the most important break with the past” in economics (Stiglitz, 2000, p.1441). Questions of trust can also be seen as problems of asymmetric information (Connelly et al., 2011; Stiglitz, 2000). This asymmetry might be that the seller knows the quality of a product and the buyer does not (Akerlof, 1970; Shapiro, 1983). This is exemplified in Akerlof’s classic model of used car sales, which seeks to model the asymmetry between a seller, who knows how well their car works, and the buyer, who only has the seller’s word that the car isn’t a ‘lemon’. In the so called ‘principal-agent problem’, the asymmetry stems from the idea that business owners cannot monitor everything done by the managers they employ, meaning that managers can pursue strategies that reflect their own interests rather than the owners’ interests (Jensen & Meckling, 1976; Ross, 1973). In Spence (1973)’s model of the labour market, employees can be more or less productive, but their employers cannot identify this before they make a job offer, meaning that “to hire someone, then, is frequently to purchase a lottery (p.356).”

Each of these models stands somewhat apart from the simplest classical economic approach, in part, because they envisage some extra diversity amongst the potential trustees (Connelly et al., 2011; Nelson, 1974). There are less productive workers in Spence (1973), who may also be the ones manufacturing Akerlof’s (1970) unreliable “lemon” cars. These are “selection problems” for the trustor (Stiglitz, 2000, p.1447). Stiglitz (2000) distinguishes these from “incentive problems” which focus on the future of incentives of the trustee. However, such incentive problems can also be approached from a selection perspective: the principal-agent problem can also be thought of as depending on “the tastes of managers for non-pecuniary benefits” (Jensen & Meckling, p.330), with some managers caring about their

share of the same profits enjoyed by the owners, while other managers care about how comfortable their office is and how much respect they receive in society. More simply, if we think of agents as always promising to look after their principal's interests, then the question becomes one of identifying an honest promiser over a dishonest promiser (Camerer & Weigelt, 1988; Tellis & Wernerfelt, 1987). These two approaches, focussing on trustee ability and trustee interest or choices, align to the idea of two different kinds of interpersonal risks, discussed above: performance risk and relational risk (Das & Teng, 2004). But the focus, from the company's perspective, is always on how they can show to the consumer that they are the trustworthy type (Weigelt & Camerer, 1988) or, in the terminology used in some marketing research, are a credible brand (Erdem & Swait, 2004).

From a different perspective, authors focussed on the trust in management and marketing have also suggested that there is diversity among potential trustees. Butler's (1991) list of potential variations includes availability, competence, discreteness, fairness, integrity, loyalty, openness, promise fulfilment, receptivity. Similar lists of characteristics have also been produced in considering what makes a source of information credible (Giffin, 1967). Such an abundance of concepts might hamper the development of a clear understanding (Bigley & Pearce, 1998). Today, the most commonly used group of characteristics (Baer & Colquitt, 2017) is Mayer and colleagues' (1995) triptic of ability, benevolence, and integrity⁷. While they were developed to analyse trust relations between employees or partner organisations, this model has been applied to the consumer-company trust relationship too (e.g., Ingenhoff & Sommer, 2010; Schlosser, Barnett White, & Lloyd, 2006; Sucher & Gupta, 2019).

⁷ A similar set of three concepts has also been developed in the risk communication literature (Peters, Covello, & McCallum, 1997).

Whether building from the problem of asymmetric information or analysing trustworthy characteristics, these two approaches share a focus on the idea that there are different types of trustee. Ability is clearly analogous to the idea of productive or unproductive employees in Spence (1973). Benevolence and integrity fit more with the idea of a principal-agent conflict of interest, as in Jensen and Mecking (1976): the more aligned interests are, the easier it is to cooperate (Ostrom, 2003).

There is some debate over whether benevolence and integrity are distinctive enough concepts. Some authors simplify the approach to just two dimensions: one related to ability and one related to goodwill (including Calefato, Lanubile, & Novielli, 2015; Fournier & Alvarez, 2012; Harris & Wicks, 2014; Hsiao et al., 2010; Mal, Davies, & Diers-Lawson, 2018; Munuera-Aleman et al., 2003; OECD, 2017a; Poppo & Schepker, 2014; Siegrist, Earle, & Gutscher, 2003; Tinsley, 1996). In a qualitative study, Mal and colleagues (2018) suggested that benevolence and integrity are closely paired, and evaluated after a company's ability. This also mirrors the distinction between warmth and competence assessments (Aaker, Garbinsky, & Vohs, 2012; Fiske, Cuddy, & Glick, 2007) and apparently aligns with the distinction between cognitive and affective trust (McAllister, 1995; Calefato, Lanubile, & Novielli, 2015), although as discussed below, the two approaches are actually quite different (Baer & Colquitt, 2017). One experimental study used the idea of "prosocial lies" – where A makes a false statement to altruistically help B – to show that integrity and benevolence can be teased apart in behavioural terms (Levine & Schweitzer, 2015), and Pirson and Malhotra (2011) also argue for maintaining the distinction because of the apparent differences in the impact of benevolence and integrity depending on the depth of the relationship. Related, though not identical, distinctions might be drawn between generalised benevolence and

integrity – ‘I would not lie’ – and specific bonds – ‘I would not lie to you’ (Nooteboom, 2002). Schoorman, Mayer, and Davis (2007) acknowledge the difficulty, but suggest that benevolence is only relevant where parties have an established relationship.

While the signalling and the trust characteristics approaches broadly agree on how trustees differ, they have different perspectives on how trustors can identify the better trustees. In management and marketing discussions that focus on trust rather than signalling, including Mayer and colleagues (1995), this process is not discussed (Malhotra, 2014). The implication is that it is obvious: the trustor observes the trustee and comes to a judgement. As Sucher and Gupta (2019, p.8) put it simply: “Be trustworthy and you will be trusted.” To distinguish this approach from the later discussion, this ‘what you see is what you get’ approach is labelled ‘naïve observation’, where there are no complicating factors between perceived trustworthiness and actual trustworthiness. The practitioner simply has to reveal their business’s high level of ability, benevolence and integrity, to be trusted. For example, in Pirson and colleagues’ work (2017) consumers are expected to judge a business’s ability when they learn how profitable it is. This still allows assessments of benevolence and integrity to be asymmetric: a small amount of negative evidence might outweigh a large amount of positive evidence (Kim, Dirks & Cooper, 2006). There are also some suggestions that contextual factors, like the trustee’s affective state, might affect how an observation leads to trust, and in particular which of the different trust aspects is most important (Schoorman, Mayer, & Davis, 2007; Tomlinson & Mayer, 2009).

In contrast, advocates of signalling theory might worry that a trustee attempting to display its ability, benevolence and integrity might just be engaging in ‘cheap talk’ (Ben-Ner, Putterman, & Ren., 2011). As the joke goes, “the key principle in selling is honesty. Once

you know how to fake that, you've got it made" (Huber, 1971, p.263)⁸. In Spence's (1973) model, employers are willing to pay higher wages to the more productive employees. But that higher pay means that every potential employee has an incentive to claim they are highly productive. The employer can't offer the higher wages to anyone, because they don't know who is really going to be more productive. Because the employees' claims are can't be treated as credible, they can't benefit, even if they are in fact more trustworthy.

The route out of this problem is to focus on credible signals. Returning to Spence's (1973) model, education can act as a credible signal if low productivity employees find education more costly and difficult than high productivity employees. An equilibrium can exist where the high productivity employees invest in education to mark themselves out from the low productivity employees. The situation is stable because, for the low productivity workers, the costs and difficulties of education are so big that they are not offset by the high wages that the employer offers.

The idea of credible signalling has then been applied extensively in marketing (Erdem & Swait, 1998; Kirmani & Rao, 2000) and management (Connelly et al., 2011). The diagnosticity of any signal depends both on how easily mimicked it is, and on the amount of noise in the environment (Bhattacharya, Devinney, & Pillutla, 1998; Cox & Deck, 2006; Klapwijk & Van Lange, 2009; Shinya, Yusuke, & Hiroki, 2016). From the consumer perspective, the opportunity for people to learn the true quality of a product and either stay loyal or switch brand is critical in establishing the nature of a credible signal (Erdem & Swait, 1998). In the consumer marketing context, these signals can be divided into those

⁸ The line has been variously attributed to Groucho Marx, Samuel Goldwyn and others (Quote Investigator, 2011).

which are costly whether or not the company lives up to its promises, such as introductory offers or advertising campaigns, and those which will prove expensive for a business of untrustworthy type, such as a generous money-back guarantee (Kirmani & Rao, 2000).

Credible signalling in a consumer trust context requires the kind of inferential reasoning that was also critical to the classical model (Kirmani & Rao, 2000). The consumer must infer that only companies that are particularly confident in their skills can make voluntary offers that would be risky for lower skilled companies, whether that is in more generous guarantees, offers of transparency, or other forms of voluntary hostage posting (Boulding & Kirmani, 1993; Nakayachi & Watabe, 2005), or large investments in their brand which will only recoup their value if customers remain loyal (Erdem & Swait, 1998). An apparently simple example might be a large charitable donation, as exactly the kind of hard-to-fake, costly signal that indicates a benevolent type (Milinski, Semmann, & Krambeck, 2002). However, if, for example, only companies who make large charitable gifts are considered for lucrative public contracts, then suddenly the donation reveals nothing about the underlying company type. This can make the returns to signals discontinuous (Stiglitz, 2000), as can be seen in Spence's (1973) education-signalling model, where a certain amount of education wins you a high paying job, but any additional education beyond that is wasted. Indeed, signals are so dependent on the underlying context that both high and low prices have been considered to be potential signals of unobservable product quality: high prices suggesting confidence that consumers will happily pay for quality, while low, introductory prices, might suggest that sellers believe they will earn consumers' confidence if they try the product, and so the introductory offer will quickly pay for itself (Kirmani & Rao, 2000).

While credible signalling requires inferences from the trustor, it does not have to be a deeply considered and strategic move on the part of the trustee. Frank (1988, p.5) makes the intriguing argument that the trustee's own emotions can act as credible signals to trust:

“Consider, too, the person who ‘feels bad’ when he cheats. These feelings can accomplish for him what a rational assessment of self-interest cannot – namely, they can cause him to behave honestly even when he *knows* he could get away with cheating. And if others realize he feels this way, they will seek him as a partner in ventures that require trust”.

From a more positive perspective, if someone gets pleasure from being thought trustworthy, then that could provide a reason to trust them (Pettit, 1995). This model only holds if emotional mimicry is imperfect or more costly for the untrustworthy type, otherwise untrustworthy people would display these emotions and their signalling value would disappear (Frank, 1988; 2004; 2011). Displays of emotion have been identified as a potentially fruitful research avenue to understand interpersonal and intraorganisational trust (van Knippenberg, 2017).

Companies do not have the ability to reveal their emotional state by smiling with feeling rather than in a fake way (Scharlemann et al., 2001). However, there is a developing literature on brand authenticity which speaks to this point, focussing on how a company shows what intrinsically motivates it (Becker, Wiegand, & Reinartz, 2019; Morhart et al., 2015; Moulard, Raggio, & Garretson Folse, 2016). Authenticity is also a prized quality in political candidates (Valgarðsson et al., 2020). At the same time, there is evidence that false signals or inauthentic displays are treated harshly, both for interpersonal trust (Jordan et al., 2017) and consumer

trust (Cheshin, Amit, & van Kleef, 2018; Houston, Grandey, & Sawyer, 2018; Wagner, Lutz, & Weitz, 2009).

What is the relationship between ability, benevolence, and integrity? Mayer and colleagues (1995, p.721) appear to suggest that, to be “deemed quite trustworthy”, a trustee should be perceived as having all three characteristics. Consumer and intraorganisational trust studies can find very strong correlations between all three (Cho, 2006; Colquitt, Scott, & LePine, 2007). However, from a credible signalling perspective, a signal of ability provides no information about a trustee’s benevolence. For example, an advanced degree signals that someone has high ability in some field and so should be able to perform related tasks in a competent way. The degree is only relevant to performance risks and has no bearing on relational risks (Das & Teng, 2004), unless we imagine it includes some sort of ethical training, as in a medical degree. A qualitative study of physician-managers, using the ability, benevolence, integrity model, suggested that medical professionals saw potential conflicts between managerial competence and integrity and benevolence in patient care, as well as suspecting that managerial responsibility was associated with reduced medical skill (Cregard & Eriksson, 2015).

There is also some evidence that these different aspects have different levels of importance, at least in certain context. Ability, benevolence and integrity can be expected to play different roles depending on what vulnerability is most important at the time (Colquitt et al., 2011), which then leads different stakeholder relationships to be more dependent on different aspects of trust: for example, with employees highly dependent on a business’s benevolence (Pirson, Martin, & Parmar, 2017). At an interpersonal level, more powerful people tend to use competence-based arguments, and also tend to be persuaded by such arguments, while those

who have less power tend to use and respond to benevolence-based arguments (Dubois, Rucker, & Galinsky, 2016). One study found that businesses tended to be less trusted for their benevolence than other institutions, but that trust in their benevolence was the strongest predictor of overall trust in business (Peters, Covello, & McCallum, 1997).

Another key potential difference between these different aspects is what information is needed to diagnose their absence. A single example of bad faith might lead to strong conclusions about a person's lack of benevolence or integrity, while a single failure of competence might not have such a strong effect (Kim, Dirks & Cooper, 2006). This could explain why 'attack ads' in US politics are more effective when aimed at a candidate's character rather than their job performance (Homer & Batra, 1994). However, at the stage of trust-building, rather than trust-repair, questions of character and of ability are more similar: repeated positive performance is often not fully diagnostic of full trustworthiness, and such positive events, such as a nuclear power plant operating without a problem for a day, can lack visibility or definition (Slovic, 1999).

Signals to trust or 'antecedents' of trust, the term used by Mayer and colleagues (1995), both imply a causal story over time: first we receive the signal or assess the antecedents, then we form our trust judgement. The correlational research designs that are often employed in measuring the perceived ability, benevolence, and integrity of companies (for example, Pirson and Malhotra, 2011, who recognise this issue) make it difficult to tell this causal story from the evidence. For this reason, throughout this paper, ability, benevolence and integrity will be referred to as 'aspects' of trust, which might correlate with trust but don't necessarily precede it, unless they are being discussed as clearly pre-dating and leading to trust.

Table 1.3 lists a range of potential type-signalling interventions that a business could make, based on the findings in a range of different trust studies, spanning experimental economics, behavioural science, marketing and management. The type-signalling approach draws attention to a key question for each one, however: how credible is it as a signal? In one market, with one set of incentives, a particular signal might be highly revealing of type, while in another, it might not.

Table 1.3 Potential consumer trust interventions within a “type signalling” model of trust-building			
Relevant findings	Research contexts	Author, Year of Publication	Potential interventions
<i>Naïve signals of ability</i>			
A statement asserting a business’s reliability can increase trust	Experimental studies of consumer trust	Li & Miniard, 2006; Schlosser, Barnett White, & Lloyd, 2006	Communications should assert the company’s trustworthiness
A higher quality website can increase trust	Experimental and qualitative studies of consumer trust	Baumann, 2017; Schlosser, Barnett White, & Lloyd, 2006	Companies should invest in high quality website design
<i>Potentially credible signals of ability</i>			
More expansive guarantees increase perceptions of quality in a consumer durable	An experimental study of consumer trust	Boulding & Kirmani, 1993	Introduce guarantees or use marketing campaigns to ensure they are seen as binding
Independent expertise or independently set quality standards can lead to higher trust or overcome problems of unobservable quality	Experimental studies of source credibility and correlational studies of the manufacturing and motion picture businesses	Klucharev, Smidts, & Fernandez, 2008; Lampel & Shamsie, 2000; Terlaak & King, 2006; Wilson & Sherrell, 1993 (although Bohner, Ruder, & Erb, 2002, show the risk of potential backfire effects)	Showcase endorsements from recognised experts in consumer-facing marketing and communications, seek out reviews and certification from recognised authorities, invest in “star names” that suggest underlying product quality to audiences

Being trusted by others increases the probability that a particular trustee will be trusted	Experimental studies of interpersonal and consumer trust and a correlational study of intraorganisational trust	Benedicktus et al., 2010; Buskens & Weesie, 2000; Ferrin, Dirks, & Shah, 2006; Wei, Zhao, & Zheng, 2019	Highlight the number of customers who trust the business
Profitability increases trust, at least in relation to competence, and more noticeably amongst ideological conservatives	Experimental studies of stakeholder trust	Pirson et al., 2014, 2017	Publicise company profits
Specialist website and online assistants were more trusted	Experimental study of trust in an online purchase context	Koh & Sundar, 2010	Emphasise the business's specialisation
Spending on advertising signals that a company's goods are of such good quality that customers return to them and pay the price premium	Theoretical model and econometric study of quality, price and advertising in the car industry, of different spending levels on advertising by product types and a correlational study of consumer perceptions of quality and advertising expenditure	Erdem & Swait, 1998; Milgrom & Roberts, 1986; Nelson, 1974; Thomas et al., 1998	If the company does have a higher quality product, it should invest in advertising and other conspicuously expensive status symbols like offices in desirable locations
Partnering with another brand can signal trust, provided the second brand has much to lose if they endorse an untrustworthy partner	Experimental study of consumer assessments of unobservable quality	Rao, Qu, & Ruekert, 1999	Partner with other brands who are exposed to a potential backlash if your company is untrustworthy
Higher prices signal that a company's goods are of such good quality that customers return to them and pay the price premium	Theoretical models and meta-analysis of price/quality correlations in consumer report studies, econometric study of quality, price and advertising in the car industry	Milgrom & Roberts, 1986; Rao & Monroe, 1996; Tellis & Wernerfelt, 1987; Thomas et al., 1998	If the company does have a higher quality product, it should charge a price premium for it
<i>Naïve signals of benevolence and integrity</i>			
Irrelevant apologies like 'I'm sorry about the rain' increase perceived benevolence	Experimental study of interpersonal trust	Brooks, Dai, & Schweitzer, 2015	Apologise when a customer is suffering, even when the problem is nothing to do with your company
Drawing attention to potential drawbacks or negatives in a product can increase trust (though this does not always lead to a product being chosen)	Experimental study of consumer and employer trust	Keren, 2007	Draw attention to the downsides in your case or frame products in a way that seems scrupulously honest (e.g. "25% fat" rather than "75% lean").

Specific arguments about a company's environmental claims increase trust in environmental credentials	Experimental study of consumer trust in environmental product claims	Atkinson & Rosenthal, 2014	Make specific, rather than vague, arguments for trustworthiness
Co-op business models are more trusted	Correlational study of B2B relationships	James & Sykuta, 2006	Communicate any cooperative element of the business model: for example, employee share ownership
Trustees demonstrating trust in a third party increased trust, sometimes demonstrated through telling a personal story of hardship or vulnerability	Experimental studies of interpersonal trust	Charness et al., 2011; Hagman, 2020	Show the company's trust in employees or other customers
Nationals and products from specific countries are trusted more than others	Experimental study of consumer trust as well as cross-national study of venture capital investment behaviour	Bottazzi, Da Rin, & Hellmann, 2016; Kabadayi & Lerman, 2011	Make an effort to showcase employees or operations in particularly trusted countries, even outside their home market
Trustors show greater trust in consumers of "natural" foods and in companies using solar technology	Experimental studies of interpersonal and consumer trust	Pirson et al., 2014; Taylor & Stevenson, 2018	Associate the company with natural food and farming and renewable energy
Companies with a mission statement focussed on increasing employment are more trusted than those who focus on profitability	Experimental study of consumer trust	Pirson et al., 2014	Prioritise job-creation over profitability in the company's mission statement
Promises and other non-binding contracts can increase trust, pledges to keep prices low increase perceived benevolence if price levels are well known.	Experimental studies of interpersonal trust and an experimental study of consumer trust	Abbink, Irlenbusch, & Renner, 2000; Schweitzer, Hershey, & Bradlow, 2006; White & Yuan, 2012	Make pledges to act in a particularly trustworthy way
<i>Potentially credible signals of benevolence and integrity</i>			
Trustees that are perceived to be deliberately more transparent are more trusted	Correlational study of interorganisational trust	Sako & Helper, 1996	Deliberately invite scrutiny and publish data beyond legal requirements

Charitable donations can increase trust, as do more longstanding, and freely chosen, CSR programmes	Experimental studies of interpersonal trust and consumer trust	Elfenbein, Fisman, & McManus, 2012; Fehrler & Prezziorka, 2016; Milinski, Semmann, & Krambeck, 2002	Companies should make large charitable donations and publicise the fact
When prices are unpredictable, price match guarantees make a retail business more trusted	Experimental study of consumer trust	White & Yuan, 2012	When prices are unpredictable, pledge to match competitor prices
Those who do not seek to hedge outside the trust relationship are more trusted, as are those who voluntarily post some form of hostage	Experimental studies of interpersonal and consumer trust	Bracht & Feltovich, 2007; Keren & Raub, 1993; Malhotra & Gino, 2011; Nakayachi & Watabe, 2005	Make decisions which deliberately make the company dependent on its target customers
A more unique way of working or product increases perceived brand authenticity	Experimental and correlational studies of consumer trust or brand authenticity	Morhart et al., 2015; Moulard, Raggio, & Garretson Folse, 2016;	Emphasise an idiosyncratic approach, scarce knowledge and ingredients or other elements that make a brand unique
Emphasising longevity and heritage increases perceived brand authenticity, while perceived consistency of approach is associated with greater brand credibility	Experimental and correlational studies of consumer trust or brand authenticity	Erdem & Swait, 1998; Morhart et al., 2015; Moulard, Raggio, & Garretson Folse, 2016	Emphasise a long and unique heritage behind a company and deliver marketing messages in a consistent fashion
Frontline employees using inauthentic emotions reduces trust	An experimental study of consumer trust	Houston, Grandey, & Sawyer, 2018	Discourage representatives of the company from making inauthentic emotional displays
Guilt aversion preferences can lead to trustworthiness	A theoretical model of interpersonal trust	Battigalli & Dufwenberg, 2007	Suggest that the business would feel guilty if it let customers down, both in marketing and communications and in sales interactions
Trustees deciding quickly or acting cooperatively without considering the potential costs or benefits can lead to increased trust	Experimental studies of interpersonal trust, an evolutionary model and a field study of decisions on a television gameshow	Critcher, Inbar, & Pizarro, 2012; Capraro & Kuilder, 2016; Hoffman, Yoeli, & Nowak, 2015; Johnsen & Kvaloy, 2015; Jordan et al., 2016b; Van de Calseyde, Desmet, & Van Dam, 2014; Van de Calseyde, Evans, & Demerouti, 2020	Increase the speed of decision-making or introduce 'no questions asked' guarantees

Trustees displaying self-control in a separate context increases trust	An experimental studies of interpersonal trust	Righetti & Finkenauer, 2011	Communicate the company's record of resisting temptation
More extreme political positions are more trusted	Theoretical model	Kartik & McAfee, 2007 (Although Pennycook & Rand, 2019a, find less trust in highly partisan news source)	Take extreme positions on issues
Trustees displaying a deontological moral code (in a separate context) increased trust	An experimental studies of interpersonal trust	Everett, Pizarro, & Crockett, 2016	Communicate the company's deontological values or set deontological corporate policies
Punishing another's betrayal increases trustworthiness	Experimental studies of interpersonal trust	Jordan et al., 2016a; Jordan & Rand, 2019	Criticise other companies that are untrustworthy - although be careful you don't act hypocritically in doing so, as this can have the opposite effect (Jordan et al., 2017).

Affective/relational model and related interventions

McAllister's (1995) model of "affect-and cognition-based trust" was published in the same year as Mayer and colleagues and has been almost as influential (Baer & Colquitt, 2017). It takes the division of affective and cognitive dimensions of trust proposed by sociologists Lewis and Weigart (1985) and applies it to trust within organisations. It has since been used quite frequently, with different degrees of reinterpretation, in management and marketing studies of consumer trust (including Calefato, Lanubile, & Novielli, 2015; Johnson & Grayson, 2005; Sekhon et al., 2014).

At first glance, this model looks similar to Mayer and colleagues' (1995), albeit with two rather than three areas of focus. Cognitive trust is associated with good reasons to trust, particularly competence, responsibility, reliability and dependability (McAllister, 1995). Affective trust is associated with "genuine care and concern for the welfare of partners" i.e. a similar idea to benevolence (McAllister, 1995, p.26). As the different types discussed above are relevant to different kinds of trust problems, so cognitive and affective trust have different antecedents and different behavioural consequences. Using Das and Teng's risk terminology (2004), when a risk is relational it is a matter for affective trust, while when it is a performance risk then it is a matter for cognitive trust. However, there can be strong correlations between measures of affective and cognitive trust (van Knippenberg, 2017).

The first important difference between the models becomes clear, however, if we consider the question of how trust judgements are formed (Bigley & Pearce, 1998). In the models discussed up to this point, all trust judgements either depend on naïve observation – which Schoorman, Mayer and Davis, (2007) make clear is cognitive – or on complex inferences about trustee incentives and future behaviour. In McAllister's (1995) model, the cognitive

trust judgements are arrived at in the same way, but affective trust is different. The exact process is not made very explicit by McAllister, but Zajonc's (1980) concept of an affective evaluation is cited. For Zajonc, the affective reaction occurs before, and independently of, a cognitive assessment, meaning that "we can like something... before we know precisely what it is" (p.152). This means that affect plays a very specific role in McAllister's model: he is not suggesting that "affect as information" biases all trust judgements, as in Schwarz & Clore's (1983) model (Baer & Colquitt, 2017; van Knippenberg, 2017). Instead, McAllister's model appears to suggest that when questions of trust focus on goodwill and intention, the affective reaction determines the trust judgement. The topic or type of risk (relational or performance based) determines the type of processing (affective or cognitive) that trustors use. Taking this one step further, Williams (2001) proposes that affect towards a group can provide a sufficient reason to trust (or distrust) people in that group.

The second key difference is the role of the relationship between trustor and trustee – prompting van Knippenberg (2017, p.8) to propose renaming this entire approach as "relationship-based trust". The strength of the relationship determines the role that affect-based trust plays. McAllister (1995) suggests that affect-based trust is impossible in the first stage of a relationship, but that, when the relationship is very advanced, then the affective evaluation will dominate all trust questions, even ones related to performance risk. This echoes a longstanding interest in close relationships, identification, value congruence, and social distance in questions of trust across numerous different fields (Buchan & Croson, 2004; DeBruine, 2005; Deutsch 1958; Pirson & Malhotra, 2011; Pirson, Martin, & Parmar, 2017). It means that the topic only determines the type of processing at some mid-point in relationship development: trust in strangers, whether relational or performance-based, is

processed through cognition, while trust in close friends, whether relational or performance-based, is processed by an affective reaction (Nooteboom, 2002).

Developing a relationship based on reciprocity is a key route to coordination in social situations, including in questions of trust (Abdulkadiroğlu & Bagwell, 2013; Bolton, Katok, & Ockenfels, 2004; Berg, Dickhaut, & McCabe, 1995; Charness & Haruvy, 2002; Jones & George, 1998; McCabe, Rigdon, & Smith, 2003; Misyak et al., 2014; Ostrom, 2003; Rabin, 1993). This could be a question of signalling – as more experience of interaction provides more evidence of partner type (Ostrom, 2003). Biased information processing, where new information is more likely to reinforce our like or dislike of a trustee may help reinforce this effect (Cvetkovich, et al., 2002; Zarolia, Weisbuch, & McRae, 2016). But researchers have repeatedly found that before someone increases their trust in a fellow in-group member, they need to know that the trustee is aware of their shared identity (Foddy et al., 2009; Platow et al., 2012). This suggests that reciprocity might be based less on a rose-tinted view of the people we like, and more on an expectation that, if they know we share a bond, then they will act in a trustworthy way. Whatever the exact mechanism, the affective-relational model allows relationships to start in terms of “tit-for-tat” but to progress beyond that pattern to one that is less calculating and more forgiving (Jones & George, 1998; Lewicki & Bunker, 1996).

The frequent assumption in the trust literature is that trusting relationships have to develop over time (for example, Lewicki & Bunker, 1996). However, research on ‘swift trust’ has suggested that trust can sometimes occur quite quickly when, for example, a diverse set of freelancers all work together to create a movie (Corritore, Kracher, & Widenbeck, 2003; Meyerson, Weick, & Kramer, 1996). The idea of swift trust involves deliberate rule-following (Baer & Colquitt, 2017), where people are “vigilant social perceivers” who can then leapfrog

the normal stages of relationship development when they identify particular cues about their trust partners or contexts (Kramer & Lewicki, 2010, p.257). That makes it a different idea from trust heuristics (Baer & Colquitt, 2017) or the phenomena of immediate trust for complete strangers in interpersonal experiments (Dunning et al., 2014), which are both discussed in the subsequent section.

In an affective-relationship model, companies should either attempt to increase trust through the processes available to their relationship stage, or to make the relationship closer and therefore change how the company is judged. If cognitive processing is being used, then the model is indistinguishable from the signalling model used above, except that the topic is normally restricted to ability or competence. If affective processing is being used, then the business should seek to create a more positive affective reaction i.e. simply to be better liked. But perhaps most fruitfully, this model suggests that a company can change which processes are used by attempting to build a closer relationship, with the aim that then all trust judgements will come down to a positive affective reaction. This makes relationship marketing a critical aspect of trust-building (Dwyer, Schurr, & Oh, 1987; Morgan & Hunt, 1994; Sirdeshmukh, Singh, & Sabol, 2002) and chimes with the emphasis on brands as relationship partners (Fournier & Alvarez, 2012). Table 1.4 suggests a series of potential interventions that can be seen as reflecting this affective-relationship based model of trust-building.

Table 1.4 Potential consumer trust interventions within a “affective-relational” model of trust-building

<i>Relevant findings</i>	<i>Research contexts</i>	<i>Author, Year of Publication</i>	<i>Potential interventions</i>
<i>Increased liking/positivity/brand affect and homophily</i>			
More liked trustees are also more trusted, and perspective taking increases both liking and trust	Correlational studies of consumer and interorganisational trust and an experimental study of interpersonal trust	Chaudhuri & Holbrook, 2001, 2002; Doney & Canon, 1997; Erle, Ruessmann, & Topolinski, 2018; Lau & Lee, 1999; Nicholson, Compeau, & Sethi, 2001; Sung & Kim, 2010	The company should focus its communications on creating a warm glow of positivity for customers, and, when possible, encourage them to see things from its point of view
Trustors show greater trust for trustees who are in-group members, particularly when contrasted with a shared opponent, while social similarity and location is associated with increased trust	Experimental studies of interpersonal trust and correlational studies of interorganisational trust and institutional trust	Buchan & Croson, 2004; Buchan, Croson, & Dawes, 2002; Carlsson et al., 2018; Chuah et al., 2016; Deutsch, 1958; Falk & Zehnder, 2013; Hughes et al., 2016; Karlan, 2005; Lei, Masclet, & Vesely, 2014; Slovic, Flynn, & Layman, 1991	Showcase staff and leaders from a similar social group as the target customer
Shared values or support for a positively regarded cause and can be associated with increased trust	Experimental studies of interpersonal trust and correlational studies of consumer and interorganisational trust	Carlin & Love, 2013; Fehrler & Kosfeld, 2013; Hernandez-Lagos & Minor, 2015; Morgan & Hunt, 1994; Sekhon et al., 2014	Support a cause that consumers believe in
Eating the same food as a potential trustee increases trust	Experimental study of interpersonal trust	Woolley & Fishbach, 2017	In point-of-sale interactions, offer free food which is also enjoyed by salespeople
Labelling a trustee as a ‘friend’ increases trust	Experimental study of interpersonal trust	Burnham, McCabe, & Smith, 2000	Describe the brand as the consumer’s friend in marketing and communications, encourage salespeople to develop friendly relationships with customers

<i>Relationship building and reciprocity</i>			
Communication and frequent contact are associated with increased trust	Experimental study of interpersonal trust, correlational studies of inter- and intra-organisational trust	Anderson & Narus, 1990; Ben-Ner & Putterman 2009; Ben-Ner, Putterman, & Ren., 2011; Bicchierri, Lev-On, & Chavez, 2010; Burt & Knez, 1995; Deutsch, 1958; Doney & Cannon, 1997; Ellingsen et al., 2009; Hamman, Weber & Woon, 2011; Morgan & Hunt, 1994; Sekhon et al., 2014	The company should contact its customers on a regular basis
Partnerships, especially more long-lasting ones, that allow for patterns of reciprocity to develop are associated with increased trust	Experimental studies of interpersonal and consumer trust and correlational studies of inter- and intra-organisational trust	Bohnet & Huck, 2004; Bolton, Katok, & Ockenfels, 2004; Burt & Knez, 1995; Buskens & Weesie, 2000; Cocharde et al., 2004; Dyer & Chu, 2000; King-Casas et al., 2005; McCabe, Rassenti, & Smith, 1996	Seek to create long-term reciprocal relationships with customers, for example, using reward cards
Higher perceptions of trustee loyalty are associated with higher trust	Correlational study of intraorganisational trust	Butler, 1991	Show loyalty to long-term customers, for example by offering them discounts
Trustors show more trust in individual decision-makers than group ones, with the inference being that it is easier to escape responsibility for reciprocity within a group, reducing the incentive to reciprocate	Experimental studies of interpersonal and intergroup trust	Holm & Nystedt, 2010	Emphasise that ‘the buck stops’ with a particular individual who will be responsible for reciprocating a customers’ trust, for example, by allowing store managers to offer discretionary discounts to regular customers

‘Trusting fast and slow’ model and related interventions

Over recent decades, much research in psychology and behavioural science has focussed on how people might think in two different ways: one emphasising complex reasoning, while the other emphasises intuitive associations (Denes-Raj & Epstein, 1994; Kahneman, 2002; Sloman, 1996; Stanovich & West, 2000). The evidence for this distinction starts with the idea that these two ways of thinking can produce a “simultaneous contradictory belief” (Sloman, 1996, p.11). In the most famous example, participants believe that an outspoken and highly educated bank teller is more likely to be a bank teller and a feminist than just a bank teller – while, on reflection, recognising that this is logically impossible (Tversky & Kahneman, 1983). People with stronger cognitive abilities are less likely to make such errors (Stanovich & West, 2000). Experimental manipulations have successfully increased or decreased these errors (for example, Evans & Curtis-Holmes, 2005). Models of persuasion suggest that different sorts of communication will have different influence on each type of thinking, with irrelevant information being more persuasive when processing is quick and intuitive (Chaiken, Liberman, & Eagly, 1989; Petty & Cacioppo, 1986).

When people are using the more intuitive way of thinking, they may fail to fully assess a complex question and instead use an intuitive rule-of-thumb or heuristic (e.g., Tversky & Kahneman, 1973). Such heuristic thinking may not only be easier, it may be adaptive too (Goldstein & Gigerenzer, 2002; Rand, 2016; Rand, Greene, & Nowak, 2012). Often these heuristics take the form of ‘attribute substitution’; swapping a complex question for an easy one (Kahneman, 2002). These easier questions are often easier because they are “natural assessments” that are automatically available when we examine an object: for example, size, distance, similarity, or fluency of processing (Kahneman & Frederick 2002, p.55). One of these natural assessments is affect - whether you feel positive or negative towards an object -

and this then leads to the ‘affect heuristic’, where instead of answering the complex question, the person answers the simple question: do I feel good or bad about this object? (Finucane et al., 2000; Slovic et al., 2002). The ‘halo effect’ where different positive attributions all tend to correlate (Cooper, 1981) would be expected as the consequences of people making attribute substitutions using the affect heuristic. This is a concept that will be important for the empirical work described in Chapters 2 and 3.

The focus on the use of heuristics when people think quickly should not be read as implying that, when people are reflective, their processing is neutral, unbiased or normatively rational. Affective and cognitive biases have been found even when participants might be assumed to be using more deliberate processing (e.g., Lee & Selart, 2011; Fetchenhauer & Dunning, 2010). Instead, this slower processing is described as “thoughtful (though sometimes biased)” (Petty & Cacioppo, 1986, p.191). It is not necessary to take a short cut in order for someone to get lost, though it might make it more likely in some circumstances.

The relationship between these two ways of thinking is still a matter of substantial controversy (Evans & Stanovich, 2013). The idea of them as two distinct and separable *systems* has been criticised as going beyond the evidence (Chater, 2003; Evans & Stanovich, 2013; Keren & Schul, 2009; Kruglanski et al., 2006). However, the idea of two *processes* (Evans & Stanovich, 2013) or two *functions* (Herrmann-Pillath, 2019) is a more modest claim and therefore easier to evidence. At a minimum, the idea of faster and slower ways of thinking, even if it is simplified, can aid analysis, hypothesis generation (Kahneman, 2011) and practical policymaking (Chater, 2018). It is also possible to distinguish between the automatic processing of something that is consciously represented and the automatic

processing of something that is not consciously represented, with the latter sometimes being called ‘Type 0’ cognition (Shea & Frith, 2016).

The “default interventionist” view describes the relationship between the two processes (Evans & Stanovich, 2013; Kahneman, 2011; Kahneman & Frederick, 2002), where the default is the intuitive, fast process – Type 1 processing in Evans and Stanovich’s (2013) updated terminology – while Type 2 processing, which is slower and more complex, “will occur only when difficulty, novelty, and motivation combine to command the resources of working memory” (Evans & Stanovich, 2013, p.237)⁹. If Type 2 processes detect that an initial Type 1 intuition is wrong, they can correct that error or acquiesce to it, such as when people comply with a superstition not to ‘tempt fate’ even when they know this is impossible (Risen, 2015).

Trust judgements are likely candidates for heuristic processes because they combine all the complexities of decision-making under uncertainty with additional social and strategic questions about how we believe others will act, what will motivate them, and how they think will interpret our choices (Evans & Krueger, 2011, 2014, 2016; Nooteboom, 2002; Bohl & van den Bos, 2012; Cox & Deck, 2006; Zak, 2019). In social interaction games, even when acting in an optimal fashion, participants have struggled to explain their strategy explicitly (Camerer & Weigelt, 1988). Together, this makes some authors sceptical that people can be basing their trusting behaviour on very considered judgements (Keren, 2007; Kugler, Connolly, & Kausel, 2009). In some situations, where there is little clear information, heuristics may be the only thing people can use to make trust decisions (Chaiken &

⁹ A separate point is the suggestion that increased (reduced) trust *causes* more Type 1 (Type 2) processing, which has been evidenced in some contexts (Fein, 1996; Kleiman et al., 2015; Priester & Petty, 2003). This is not the focus here, but the association is referenced in the Table 1.5.

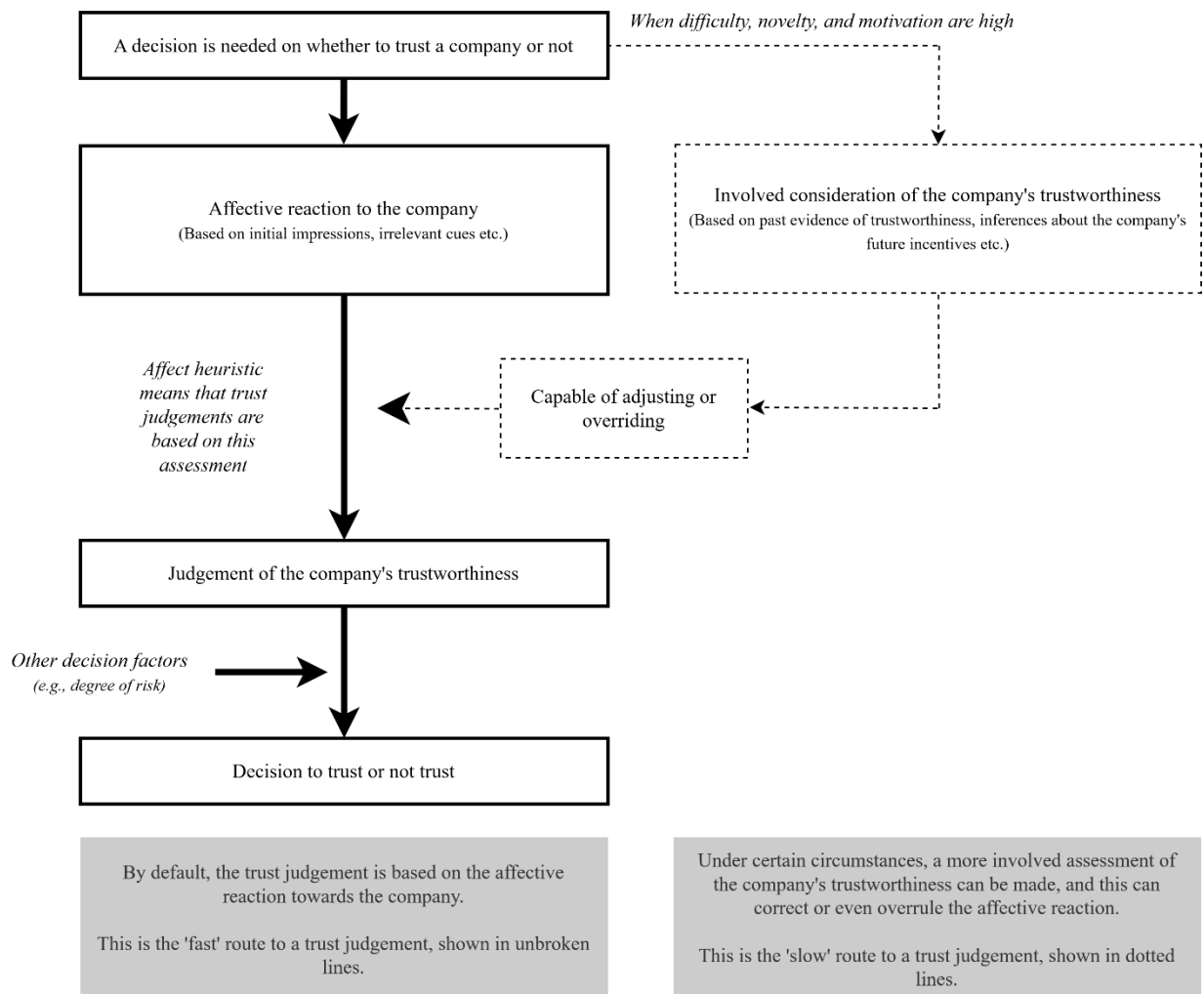
Maheswaran, 1994; Kahneman & Frederick, 2002). However, Siegrist and colleagues (2003, p.707) argued that “the implications of dual-mode models of information processing for our understanding of trust and confidence have not been fully exploited”.

In interpersonal trust research, there is a growing body of evidence suggesting that people do often use heuristics to form trust judgements¹⁰. These can involve the affect heuristic, where, when the object of trust is made more attractive or easier to deal with, trust increases (Harris et al., 2015; Pennycook, Cannon, & Rand, 2018; Wilson & Eckel, 2006; Winkielman, Olszanowski, & Gola, 2015; Zurn & Topolinski, 2017). There is also evidence for a variant on this affect-related heuristic – where feelings unrelated to the target, such as a good mood, also affect trust (Dunn & Schweitzer, 2005; Forgas & East, 2008; Kang et al., 2011; Lount, 2010; Mislin, Williams, & Shaughnessy, 2015; Sellaro et al., 2015; van Knippenberg, 2017). Other heuristics have also been identified, such as deciding based only on one’s own potential payoff and ignoring partner incentives (Evans & Krueger 2011, 2014, 2016) or simply opting for whatever the default option is when one is low on self-control, regardless of whether the option is trusting or distrusting (Evans et al., 2011). Williams (2001) proposes a model of interpersonal trust in which people sometimes form trustworthiness perceptions based on a belief about a category of people – for example, taking the wine recommendation of a French colleague, without actually considering whether they are really knowledgeable on the subject – and she notes that the degree of category-based processing is influenced by the context people find themselves in. Murray and colleagues (2011) propose a related model of trust in romantic relationships where one’s expectations of one’s partner (‘reflective trust’)

¹⁰ Sundar and colleagues (Kim & Sundar, 2015; Koh & Sundar, 2010) propose a somewhat similar model of trust judgements in media communications, but in their model, dual processes lead to either cognitive or affective trust in a manner redolent of McAllister’s (1995) model discussed above.

are overruled by one's automatic evaluative associations with the partner ('impulsive trust'), at least when people have limited working memory capacity.

Figure 1.1 The 'trusting fast and slow' model in summary



However, there is evidence that such heuristic thinking is only the default in forming trust judgements, and not the rule: when Type 2 processing is triggered, i.e. when there is difficulty, novelty, and motivation (Evans & Stanovich, 2013), then heuristics can be overridden, and trust judgements can be based on more credible evidence. For novelty, there is some evidence that as relationships become more established, heuristics are more

frequently used to make trust judgements (Nicholson, Compeau, & Sethi, 2001), while induced suspicion has the opposite effect (Fein, 1996). The degree of risk can affect trust behaviour (Balliet & Van Lange, 2012; Johansson-Stenman, Martinsson, & Mahmud, 2005; Evans & Krueger, 2011, 2014; Keren, 2007), though not consistently (Amir, Rand, & Gal, 2012; Johnson & Mislin, 2011). When manipulations that increase Type 1 processing are removed, participants can avoid using heuristics that might lead to worse outcomes (Evans et al., 2011; Hughes et al., 2016; Mislin, Williams, & Shaughnessy, 2015; Forgas & East, 2008; Lount, 2010). We see evidence of people's capacity to ignore unhelpful heuristics in studies that show quiz teams able to ignore their teammate's prestige and dominance and instead nominate the team member most likely to perform a task that benefits the whole group (Brand & Mesoudi, 2019) and participants relying more on more relevant competence-related information, rather than warmth-related information, to make trust judgements around performance risk (Harris, Wicks, & Moriarty, 2014).

This approach predicts that individuals with more cognitive resources will be able to use Type 2 processing more – and this has been evidenced in some trust-related contexts. People who perform well on the Cognitive Reflection Task are better able to identify sources of online misinformation (Pennycook & Rand, 2019b), while those with heightened emotions are less able to do this (Martel, Pennycook, & Rand, 2020). People with more working memory (Murray et al., 2011) or self-regulation resources (Murray et al., 2013) can override a propensity to trust (or distrust) their romantic partners. In the opposite way, additional cognitive load makes people more reliant on heuristics of avoiding out groups or relying on a “trustworthy face” to make decisions in a trust game (Lount, 2010). There is also some evidence that, as children develop stronger cognitive abilities, they become more discerning and evidence-based in their trust decisions (Evans, Athenstaedt, & Krueger, 2013).

Type 1 and Type 2 processing do not map onto trust levels in a simple way. Heuristic processing might be more trusting – such as a heuristic to always trust doctors – or it might be less trusting, for example, refusing to trust anything you read in a particular newspaper. In terms of information processing, there is some suggestion that Type 1 processing is quicker to believe information that it is presented and therefore “gullible and biased to believe” (Kahneman, 2011, p.81). To predict the impact of different cognitive processes, we need to know the default which someone will tend towards when using Type 1 processes, either because of their individual traits (Speer, Smidts, & Boksem, 2020) or the situation they find themselves in (Evans et al., 2011). Rand (2016, 2014) argues that the net effects of heuristics are likely to be cooperative (i.e. trusting) because this is normally the adaptive thing to do in social life, although this depends on how benign a social environment people have grown up in (Rand, Greene, & Nowak, 2012). In addition, greater reflection has been found to make people more cynical about the motive behind others’ generosity (Critcher & Dunning, 2011). However, Mercier (2017; 2020) takes a somewhat different view and argues that, in deciding whether to trust behaviourally-relevant information, it is more adaptive to be conservative and sceptical, and that this is embedded in heuristic-based judgements rather than being imposed by the restraining forces of Type 2 processes. There is also some evidence that greater self-control, normally associated with Type 2 processes, can make people more cooperative (Martinsson et al., 2014).

Type 1 and 2 processes are also not the equivalent of our instrumental and expressive trust distinctions. While it might be natural to associate instrumental trust with Type 2, this need not necessarily be the case: if we trust the water from the tap is drinkable, our purpose is instrumental rather than expressive, but our processing is often not very deep. Equally,

expressive trust can be based on deep reflection and the decision to take a “trusting stance” (McKnight, Cummings, & Chervany, 1998, p.476), rather than a quick heuristic.

The dual process approach might help unlock the conceptual debate about whether trust and distrust are distinct concepts (Lewicki, McAllister, & Bies, 1998; Saunders, Dietz, & Thornhill, 2014; Sitkin & Roth, 1993). Lewicki and colleagues (1998) describe two seemingly opposite situations: one of high trust and low distrust, where trustors cooperate without suspicion, and one of low trust and high distrust, where trustors are fearful and cynical about their potential partners. Yet could these both be examples of Type 1 processing, where a heuristic, rather than an assessment, is determining the level of trust? When Lewicki and colleagues describe a situation of both high trust and high distrust, they suggest that the stakes are high and that trustors carefully weigh opportunities and risks – which sounds very similar to a description of Type 2 processing. In the political trust literature, recent work has suggested some reworkings of the trust terminology that reflect this sort of distinction, treating trust and *distrust* as equally ‘blind’ compared to effortful and empirical *mistrust* (Devine et al., 2020).

What could all this mean for trust in a company? Assessing the trustworthiness of a company is perhaps even more difficult than assessing the trustworthiness of another individual: for example, people have to choose which airline to fly with without truly knowing how an airline works. If, as Arrow (1972) argues, that almost every piece of economic activity involves trust, then consumers might struggle to weigh up the trustworthiness of each individual and organisation they transact with each day (Keren, 2007; Nooteboom, 2002). It seems likely that people would use heuristics, helping to explain why a meaningless logo could increase trust (Rafaeli, Sagy, & Derfler-Rozin, 2008) and why different types of

marketing and communications are more persuasive depending on which type of processing a customer is using (Chaiken & Maheswaran, 1994; Chaiken, Liberman, & Eagly, 1989; Koh & Sundar, 2010; Petty & Cacioppo, 1986). Keren (2007) finds that sellers who demonstrate their honesty by drawing attention to a products' flaws are seen as more trustworthy, but this only has a positive effect on sales when trust has been raised as a potential concern.

On this basis, it seems reasonable to conclude that most everyday consumer trust decisions should be processed automatically, which, as discussed, the dual processing approach proposes to be the default. In many cases, trustors will have a conscious representation of the trustee, but perhaps in some Type 0 cases they will not (Shea & Frith, 2016): for example, if we pick up a sandwich at a free buffet and entirely ignore who might have made it and why. Whether or not the representation is conscious, trust in such circumstances is likely to be determined by heuristic processing. For our purposes, these Type 0 moments can therefore be grouped together with Type 1, as fundamentally 'fast' trust judgements.

This approach can be summed up by advising that companies should, by default, expect the affect heuristic to replace the kind of trustworthiness assessments discussed in the classical and type signalling models described above. But when there is motivation, or there is a particular difficulty or novelty, then judgements will be more considered and heuristics should have less of an influence. In honour of Kahneman (2011), this model could be called 'trusting fast and slow'.¹¹

¹¹ Kahneman's (2011) title includes a comma: "Thinking, Fast and Slow", perhaps suggesting that the subject of his book is thinking, which then comes in these two varieties. For my model and title, I have removed the comma: this makes it easier to read as a label in the body of this text and places more emphasis on the dual processes that are the focus of this paper.

In the thesis presented here, the affect heuristic becomes the specific heuristic of interest because positive or negative feeling towards a company is one of the ‘natural assessments’ discussed earlier which should be both possible in most business-to-consumer contexts, and can be expected to produce enough variety in that context to often be used as a signal. However, this is an attempt to focus the investigation here, and should not be understood as ruling out the relevance of other heuristics to consumer trust judgements. For example, when there are large differences in brand familiarity, such as when I shop in an unfamiliar country, I might use the ‘recognition heuristic’ to decide which brand to buy, and just opt for those I have seen before (Goldstein & Gigerenzer, 2002). When there are no differences in positive or negative feeling towards a company – for example, if we were presented with a list of anodyne holding companies like ‘ABC Limited’ and ‘Business Holdings PLC’ – then the affect heuristic would not provide a clear signal and another strategy might be needed, such as picking the first name on an alphabetised list.

Which type of trust – fast or slow – is more valuable to a company? Kramer (2014) argues that Type 1-based ‘presumptive trust’ is more powerful than more considered trust, at least within an organisation, because it is so effortless. However, there is also a body of evidence that suggests that, when people are persuaded using Type 2 processing, this has longer lasting and more substantial effects on their behaviour (Chaiken, Liberman, & Eagly, 1989; Petty & Cacioppo, 1986). Inevitably, such questions will depend in part on what the company needs to be trusted for.

This approach offers two distinct potential areas for intervention by a company, set out in more detail in Table 1.5. Firstly, it can accept the processing type that it faces. By default, this is likely to be Type 1, and so the company can aim to make people like it more, and

influence trust through the affect heuristic, potentially using some of the interventions discussed in the affect-relational model above. They could also make trustees feel more positive about their situation in general, and influence trust through their overall mood. However, if customers are in a situation of high difficulty, motivation or novelty, the business should adopt a more ‘rational’ or systemic approach, providing good reasons to trust, of the kind discussed in the classical and type-signalling models above. Finally, the company can also seek to change the type of processing used by a customer if it believes that will be advantageous. For example, if a company believes that it is being written-off by quick, heuristic dismissals, it could introduce a novel, attention-grabbing advert that prompts customers to use a Type 2 processing, so that they then to then make a more reflective and reasoned assessment of the company’s product claims.

This approach also offers a different way of looking at some of the interventions described in the preceding three models. Arguments based on credible signals, or the need to maintain a reputation, require a trustor to draw some complex inferences about the trustee they are dealing with. Naïve signals or more affective relationships, by contrast, require no such inference. Therefore, a dual processing perspective suggests that these different approaches may have different levels of success, depending on the type of processing used. For example, a naïve signal might encourage a feeling of positivity which, if Type 1 processing dominates, could lead to greater trust via the affect heuristic. However, if consumers carefully considered the meaning of a signal, they might be much more willing to apply tests of credibility, and reject naïve signals as reasons to trust.

The reader might easily see the word ‘affective’ in both the ‘trusting fast and slow’ model and in the ‘affective-relational’ model of McAllister (1995) and assume that these two

approaches are closely related. This would be the opposite of the intention of this thesis, which puts forward the ‘trusting fast and slow’ model as distinctive alternative, with a different psychological mechanism, and a different set of practical implications. The key difference is that, in the ‘trusting fast and slow’ model, people use the affect heuristic to make trust judgements depending on the contextual factors that allow Type 1 processing to dominate: specifically, the absence of sufficient difficulty, novelty, and/or motivation. But the *type* of trust judgement – performance or relational – doesn’t affect whether the affect heuristic is applied in the ‘trusting fast and slow’ model. By contrast, as discussed in greater detail above, for McAllister’s model, affective reactions happen in trust judgements when they are relational, and presumably regardless of the difficulty, novelty, and motivation involved. The implications are significant because McAllister’s model suggests that affect will always be the driver in questions of benevolence and integrity, while the ‘trusting fast and slow’ model proposes that affect can equally well drive judgements of ability, but that affect can also be overridden by Type 2 processes in the right set of circumstances, even when the risk relates to benevolence or integrity.

Table 1.5 Potential consumer trust interventions within a ‘trusting fast and slow’ model of trust-building

<i>Relevant findings</i>	<i>Research contexts</i>	<i>Author, Year of Publication</i>	<i>Potential interventions</i>
<i>Irrelevant ways of increasing trust using heuristics</i>			
Fluency of presentation and experience increases trust, sometimes simply by being repeated, but even through helpful confirmation noises in a busy shopping environment	Experimental studies of communication credibility, consumer and interpersonal trust and a correlational study of investor behaviour	Alter & Oppenheimer, 2006; Cho, 2019; Dechene et al., 2010; Dohle, & Siegrist, 2014; Ertugrul et al., 2015; Pennycook, Cannon, & Rand, 2018; Reynolds-McIlroy & Morrin, 2019; Silva et al., 2017; Song & Schwarz, 2009; Van Boom, Desmet, & Van Dam, 2016; Zurn & Topolonski, 2017	Increase fluency of consumer communications or customer experiences, choose fluent brand and product names
Subliminal activation of a friendly name increases trust	Experimental studies of interpersonal trust	Huang & Murnighan, 2010	Use names and phrases that prime customers for friendly associations
Prior exposure to the word ‘trust’ increases trust, while ‘mistrust’ has the opposite effect	Experimental study of interpersonal trust	Posten, Ockenfels, & Mussweiler, 2014	Use the word ‘trust’ in marketing materials, website design, and store decoration
Framing the decision to trust in terms of potential losses increases trust	Experimental study of interpersonal trust	Evans & van Beest, 2017 c.f. Kvaløy, Luzuriaga & Olsen, 2017.	Marketing and communications should show how failing to trust will leave the customer behind some reference point
<i>Manipulating the trustee context to change the processing style used</i>			
Reduced sleep, ego depletion or additional cognitive load reduces trust*	Experimental studies of interpersonal trust	Ainsworth, Baumeister, Ariely, & Vohs, 2014; Anderson & Dickinson, 2010; Samson & Kosslyn, 2014	Approach consumers when they are rested and not distracted
Divergent thinking increases interpersonal trust, while more concrete or convergent thinking reduces it*	Experimental studies of interpersonal trust	Sellaro et al., 2014	Encourage customers to think differently before making an appeal for trust

Thinking suspiciously or about future consequences of your actions, especially the risk of making mistakes, reduces trust*	Experimental studies of interpersonal trust	Keller et al., 2015; Kugler, Connolly, & Kausel, 2009; Monroe et al., 2017	Avoid inducing consequential or future-focussed thought
A positive or grateful mood, pleasant warmth, or a relaxing lavender scent, increase trust*	Experimental studies of interpersonal trust	Dunn & Schweitzer, 2005; Forgas & East, 2008; Kang et al., 2011; Lount 2010; Mislin, Williams, & Shaughnessy, 2015; Sellaro et al., 2015	Induce a positive mood in consumer touchpoints and marketing
<p>* For these interventions it is critical to know whether people default towards trust or away from it in the context that they face (Evans et al., 2011). Lount (2010) and Hughes, Ambady, & Zaki, (2016) look at the question directly, showing in their research that if the circumstances suggest a heuristic to distrust, then Type 1 processing would lead to distrust: for example, showing less trust towards out-group members when using Type 1 processing. The studies noted here did not take so direct a route, but an assumption consistent with this approach would be that, in these studies trusting is normally the default, and manipulations that increase Type 2 processing will therefore tend to reduce trust (as in, for example Sellaro et al., 2014 and Dunn & Schweitzer, 2005). However, in, for example, Ainsworth and colleagues' study (2014), it appears that by making it harder for people to use Type 2 processing reduces trust – which could be explained if, in their study's context, the default is to distrust.</p>			

THE AIMS OF THIS WORK

A core part of this thesis is developing and testing a risk-based way of measuring consumer trust. As is argued in detail above, the existing expressive measures miss out a substantial element of what makes up trust. Chapter 2 describes the design of this new measure and Study 1 shows how it operates in a practitioner context and compares the results with more standard expressive measures. Study 2, described in Chapter 3, shows how this measure responds to different interventions, and again compares this with more standard expressive measures. The aim is to show that, for the practitioner, this offers a practical and insightful addition to existing consumer trust measurement tools, while, for the academic, it offers a new methodological approach which may deliver new insights into consumer trust.

However, the ambition of this work does not stop at measuring the status quo: it aims to help practitioners to more effectively build trust in companies. There are dozens of potential interventions that a business could make to improve trust, as discussed above. This work aims to help narrow and focus a business's attention onto the most likely candidates. It does this in two ways: most obviously, in Study 2, making several interventions and testing their impact on consumer trust. More subtly, it offers opportunities in both Study 1 and Study 2, to test some of the predictions suggested by the different models of consumer trust development. Table 1.6 summarises these. If this work can help identify the most promising model, then this aids both practitioners and academics in a substantial way, by allowing them to focus on areas of greater potential impact, and helping to ensure that the right interventions are matched to the situations in which they are most likely to be helpful.

Table 1.6 Predictions based on the models of trust-building which will be explored and tested in Studies 1 and 2

Hypotheses were pre-registered, and the first number reflects the study it is tested in. Where no hypothesis number is given then the analysis is post-hoc.

<i>Models of trust development and key authors</i>	<i>Prediction</i>	<i>Relevant hypotheses and other material</i>
Classical liberal Hobbes (1668/1994); Smith (1763/1978); Akerlof, 1970	Inferences made about the trustworthiness of companies are not context dependent – they are effective or ineffective in all circumstances.	The impact of a competitiveness-related intervention on different contexts (see H2.3)
Type-signalling Spence, 1973; Jensen & Mecking, 1976; Mayer, Davis, & Schoorman, 1995	Inferences made about the trustworthiness of companies are not context dependent – they are effective in all circumstances. Type signalling is only relevant to relevant risks – e.g., signals of ability address performance risk but not relational risk. Perceptions conform to three (ability, benevolence, integrity) or two (ability, benevolence/integrity) aspects.	The impact of a donation, simplicity and trusting others-related interventions on different contexts (see H2.1). The impact of a donation, simplicity and trusting others-related interventions on relevant and irrelevant risks (see H2.2). Factor analysis of the different trust aspect measures (see exploratory factor analysis presented on p.128-132).
Affective / Relational McAllister, 1995; Morgan & Hunt, 1994; Lewicki & Bunker, 1996	When risks are relational, trust judgements will be driven by an affective reaction.	Decision time comparisons based on the type of risk (H1.4 and H2.6)
Trusting fast and slow Chaiken, Liberman, & Eagly, 1989; Evans & Krueger, 2016; Kahneman, 2002; Murray et al., 2013; Petty & Cacioppo, 1986; Williams, 2001	When motivation, novelty, and difficulty is low, the affect heuristic will determine trust levels. When motivation, novelty, and difficulty is high, inferences and observation, not the affect heuristic, will determine trust levels, and persuasion based on this may be longer lasting.	The relationship between liking and trusting depending on the context under which they are measured (H1.3 and H2.5). When liking is controlled for, measures of trust that invoke Type 2 processing will be more predictive of trusting behaviour than measures reliant on Type 1 processing (H1.2). The dependence of different interventions' impact on their different contexts (H2.1, H2.2, H2.3).

Applying a risk-based approach to measuring consumer trust (Study 1)

“It frequently happens that a man delivers his opinions with so much boldness and assurance, that he appears to be under no apprehension as to the possibility of his being in error. The offer of a bet startles him, and makes him pause. Sometimes it turns out that his persuasion may be valued at a ducat, but not at ten.”

Immanuel Kant, *Critique of Pure Reason*

AIMS

Practical contribution

Study 1 aims to design and test a novel risk-based approach to measuring consumer trust. For practitioners, the fundamental test of a measurement tool is a cost-benefit analysis – is using a risk-based measure of trust practically justifiable? Firstly, the measurement tool must be relatively low-cost. This has been achieved by design in this case: the risk-based trust tool is used in a standard, low-cost omnibus market research platform and the cost of additional incentives is kept to a minimum. The bigger challenge is that the tool must provide some benefit, at least on enough occasions to merit its costs. In this context, that means it must frequently provide some additional insight when companies deploy it alongside more standard expressive survey questions related to trust. Two obvious kinds of insight present themselves, which are both examined in Study 1:

- rank based between companies (e.g., Company A is more trusted than Company B) and;
- aspect based for a single company (e.g., Company A is seen to have more integrity than ability).

Hypothesis testing

Study 1 also provides an opportunity to improve our understanding of consumer trust and how it can be measured. The simplest possibility is that a risk-based measure of trust should converge with expressive survey measures of trust, which will in turn correlate with a measure of planned trusting behaviour. This is stated formally as:

H1.1. The risk-based measure of trust will correlate significantly with the expressive measure of trust and trusting behavioural intentions¹².

If this is not the case, then it would indicate that either the two measures are responding to two different underlying concepts (one or both of which might be reasonably labelled trust), or that contextual factors are changing between the two measurements.

The ‘trusting fast and slow’ model of trust-building discussed above starts from the idea that people will, by default, use intuitive Type 1 processing to make trust judgements, and more effortful Type 2 processing “will occur only when difficulty, novelty, and motivation combine to command the resources of working memory” (Evans & Stanovich, 2013, p.237).

As set out in more detail below, the design of the risk-based trust measure introduces incentives that should increase participant motivation. It is also plainly newer and more complex than survey items that participants on market research panels can expect to face every day. Therefore, it can be hypothesised that Type 2 processing is more likely to be used in making trust judgements as part of the risk-based trust measure, than when responding to expressive trust questions. This is not just a question of theoretical interest: as described in

¹² Hypotheses were pre-registered with the Centre for Open Science <https://doi.org/10.17605/OSF.IO/TUDK2>

Chapter 1, practitioners need a working model of how consumers come to trust judgements if they are to seek to influence those judgements.

As discussed above, there is an ongoing debate over whether expressive measures or experimental game behaviours better predict future trusting interpersonal behaviour. Study 1 provides a new angle from which to examine this: comparing what people say in expressive surveys, what they do in risk-based games, and what they intend to do in their real lives.

This model also has implications for the link between different measures of trust and trusting behaviour. Petty and Cacioppo (1986) argue that when attitudes form from more intensive thought, they are likely to have a stronger and more long-lasting relationship with behaviour. Together, this suggests, from a ‘trusting fast and slow’ perspective, the hypothesis below:

H1.2. The risk-based measure of trust will contribute more to predicting trusting behavioural intentions than the expressive measures of trust, once other variables are controlled for.

We might imagine that different trustees prompt, and different trustors have the capacity for, different degrees of Type 2 processing. Less familiar potential trustees clearly offer some novelty (Evans & Stanovich, 2013). Those who possess weaker cognitive abilities or engage those abilities less actively will be less likely to apply Type 2 processing in most circumstances (Stanovich & West, 2000). In this study, education is used as an imperfect proxy for such abilities.

We can combine predictions of when Type 1 and Type 2 processing are more likely to be used with the assumption that, of the different heuristics that might be employed under Type 1 processing, the most relevant is the affect heuristic – where people substitute simple like or dislike judgements for more complex judgements, such as trust (Slovic et al., 2002). By definition, when the affect heuristic is being used, we should see strong correlations in how much people like a target and how much they trust it.

Together, this leads to the prediction of a distinctive pattern. Simple like-or-dislike judgements should correlate more strongly with trust judgements when participants are using Type 1 rather than Type 2 processes. In the absence of motivation, novelty or difficulty connected to either the task or the target, this strong correlation should be expected – but it should be less expected of people with greater cognitive capacities. Kahneman and Frederick (2002) advocate the use of such correlation-based analysis in order to elicit and measure heuristics, although they suggest that this is done between-subjects (i.e. with different subject completing the different measures). The analysis proposed here is more similar to Finucane and colleagues' (2000) within-subjects approach to eliciting the affect heuristic. This can be stated formally, from a 'trusting fast and slow' perspective, thus:

H1.3. The relationship between overall positivity and trust will interact with (i) the measurement technique (ii) educational qualifications (iii) familiarity¹³

As described above, trust is sometimes separated into two pathways: affective, when related to relational risk, and cognitive, when related to performance risk (McAllister, 1995). In this

¹³ In the initial pre-registration, there was a fourth hypothesis that there would be an interaction with overall positivity itself. However, as discussed below the measure of positivity in Study 1 was not designed in a way that could test this hypothesis. This is corrected in Study 2.

model, following Zajonc (1980), affective trust judgements are reached through an affective evaluation that, in Zajonc's argument, must arrive ahead of, and independently of, any cognitive assessment. Taking the idea of 'affective trust' literally, therefore, produces a specific prediction about the response times for relational risks (i.e. those dependent on integrity and benevolence). If McAllister's model, as interpreted here, is correct, then we should observe slower decisions when judging the ability of a trustee because the processing is assumed to be cognitive, while, when judging the benevolence or integrity of a trustee, they should happen faster because the processing is expected to be through an affective reaction. As discussed below, this is not the primary focus of the research and so the methodology does not allow for strong conclusions: nevertheless, it does provide an opportunity to examine whether one set of tasks are obviously conducted faster than another. The following hypothesis states this formally, from the perspective of McAllister's model:

H1.4. Decisions on risk-based trust that relate to ability will be significantly slower than other risk-based trust decisions.

METHODS

A broadly representative sample of the UK adult population were asked about their trust in nine different companies, using both traditional measures and the new risk-based measure, with fieldwork conducted online by market research company Respondi. 2,174 participants responded to the questionnaire but as set out in the pre-registration, participants were excluded if they answered either the highest, the lowest, or the central value for every question across the risk-based trust measure, the behavioural intentions measure, and the expressive aspects measures. This means that 2,042 participants' responses were analysed; 1,030 were female and, excluding those who preferred not to say, the median participant declared a gross household income of £30,000.

Participants were randomly allocated to one of three sectors (airlines, financial services, and retail). They were then randomly¹⁴ allocated a target company in their sector from a range of three companies: so those who were allocated to Airlines were then allocated to either British Airways, Emirates, or Ryanair. For Financial Services and Retail the companies were JP Morgan, Nationwide, and Virgin Money or Amazon, Carphone Warehouse, and John Lewis respectively. The sectors were chosen to help demonstrate the generalisability of the results to a wide range of consumer-facing companies. The specific companies were chosen in anticipation that they would allow for enough variance in both positivity and familiarity for the hypotheses in H3 to be tested. However, none of the hypotheses propose that any of the businesses are more or less trusted than any of the others: as the risk-based measure is new, we start from scratch in ascertaining how trusted different companies are on this measure.

¹⁴ Participants are initially allocated randomly, and then the age and gender combination of each participant is used to allocate them to the subgroup with the lowest allocation of that age and gender combination at that point in time.

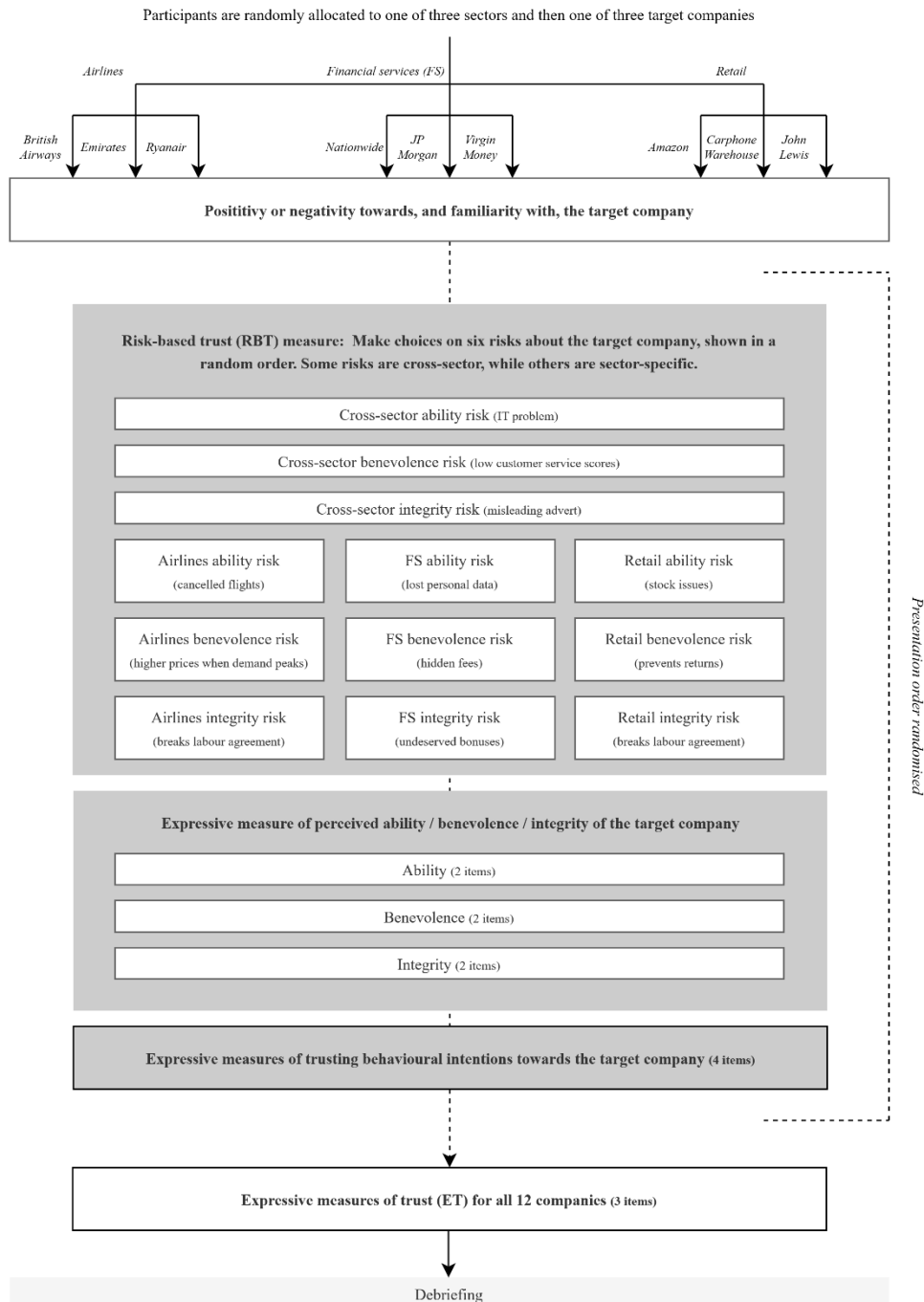
Survey structure

As shown in Figure 2.1, participants were first asked about their positivity towards the target company on a very simple scale of positive, neutral, or negative. This is coded as 1, 0 and -1 respectively. Participants were asked to make this choice as quickly as possible, so as to best represent the idea of positive or negative affect described in the “affect heuristic” (Slovic et al., 2002). A deliberately different scale format from the trust questions was also used to reduce potential common method bias (Podsakoff et al., 2003). Participants were then asked about how familiar the target firm is, and whether they are a customer.

The next stage of the survey measured trust in the target company in different ways, each described in detail below. Participants were asked six risk-based trust questions; a series of standard survey-style questions about the target company’s ability, benevolence, and integrity; and a series of expressive questions about their behavioural intentions towards the target company. The order of these sections was counterbalanced. Following these questions, participants were asked a series of expressive questions that explicitly focussed on trust, and which were asked about all nine companies. This was placed at the end of the survey, to provide the maximum distance from the overall measure of positivity, once again to minimise common method bias (Podsakoff et al., 2003). Each measure is discussed in detail below. Finally, participants saw some debriefing text which explained the purpose of the study.

Figure 2.1 Study 1 survey structure

The full text is provided in Appendix 1.



Trust measures – Risk-based measure (RBT)

In Berg and colleagues' (1995) trust game, risk is incorporated by endowing the participant with a sum of money, which will be increased if they decide to transfer this sum to their partner - but which can be lost if that partner acts in an untrustworthy way in the future. The same logic is applied here: with each risk-based choice being presented in the following way:

“This choice is about British Airways. The special account pays out 50 per cent more on top of what you put into it. But you will lose the points you put in the special account if, at any time in the next year, British Airways has a major IT problem that causes serious disruption to its business for at least 24 hours. Please choose one of the following:

Put nothing in the special account and keep all 4,000 points

Put 1,000 points in the special account and keep 3,000 points

Put 2,000 points in the special account and keep 2,000 points

Put 3,000 points in the special account and keep 1,000 points

Put all 4,000 points in the special account and keep nothing”

The similarities with the standard trust game are obvious: an endowment can be put at risk and, if it is, it can increase. However, in both cases, the risk is that the other party can act in an untrustworthy way after the endowment has been put at risk, and anything put at risk can be lost. Therefore, it can be argued on the same basis as in Berg and colleagues (1995), that money transferred in this game is also a measure of behavioural trust.

There are, of course, important differences with the standard trust game. In the standard trust game, the other party either takes or returns money they have been sent. In this game, they act in an untrustworthy way, but not in a way that is linked to the amount transferred. McEvily and colleagues (2012) advocate a similar move in their adaptation of the standard interpersonal trust game, ensuring that there is no moment of ‘giving’ money to a co-partner as it removes the confound that comes from the participants enjoyment of the act of giving. In any case, a straightforward reciprocal relationship between a single consumer and a large company seems unlikely. As discussed above, social preferences like altruism are also unlikely to be relevant in this context. In some ways, therefore, consumer trust in a company is the ideal context for using a trust game-based technique.

In this study, each participant made several ‘bets’ on the trustworthiness of one target company; specifically, betting against the probability that some sort of trust-undermining event might occur. Davies and Olmedo-Cifuentes (2016) identify six types of corporate misconduct, short of illegal behaviour, that might undermine trust: making mistakes, not telling the truth, acting unfairly, not listening to criticism, acting irresponsibly, and ‘bending’ the law. These can be intuitively mapped back to the ideas of ability, benevolence, and integrity in Mayer and colleagues’ (1995) model discussed above. The risk events used here are consistent with that typology, except that none of the events envisaged involve either bending or breaking the law.

To enable comparison, it was desirable to have some risks that could conceivably happen to any of the nine businesses, such as an IT failure. At the same time, each sector has a rich and specific set of trust relationships: for example, in air travel, I care about safety and timeliness, while in financial services I may care more about money being stolen or fraudsters using my

financial data. Each participant was asked six questions about their target company: three of these were identical across the study, while three were specific to the sector of the target company. The order of these questions was randomised.

To ensure that the events were not concentrated on a particular aspect of trust, the risk events are designed to evenly reflect Mayer and colleagues' (1995) three aspects of trust: ability, benevolence, and integrity. A small pilot study (not reported, $N=23$) asked participants to allocate potential events to these aspects and where the draft events were allocated against the author's expectations, revised events were created. It is assumed that all of the negative events used have a substantially less than 50 per cent chance of happening to a specific firm in the course of a year, so a 50 per cent return on trust is an attractive investment proposition to an economically rational, risk-neutral investor.

Trust measures – Expressive measure (ET)

There are a wide variety of measures designed to allow people to rate companies on how trustworthy they appear to be or how credible their brands are (including Chaudhuri & Holbrook, 2001, 2002; Erdem & Swait, 1998, 2004; Garbarino & Johnson, 1999; Ingenhoff & Sommer, 2010; Morgan & Hunt 1994; Morhart et al., 2015; Schlosser, Barnett White, & Lloyd, 2006; Sirdeshmukh, Singh, & Sabol, 2002); as well as the “this is a company I trust” measure regularly used by practitioners. All of these might be considered expressive measures of trust, in that they allow the rater to express a view that this company is trustworthy, without taking any risk. Of the available metrics, those used by Erdem and Swait (2004) stand out because, their measure of perceived trustworthiness asks a participant whether they trust the target company, not whether they believe the target company has certain trustworthy attributes, potentially confusing trust and ability, benevolence, and

integrity, which are examined below. One item from Erdem and Swait's five-item scale refers to past experience with the target company: given the target companies used in this study, it was likely that past experience would vary widely and so this item was excluded. Another one of the items - "This brand doesn't pretend to be something it isn't" – risks straying into a description of integrity and so was also excluded.

Trust measures – Expressive measures of ability, benevolence and integrity

Measures of ability, benevolence, and integrity were adapted from Schlosser and colleagues (2006), which were themselves adapted for a consumer context from Mayer and Davis (1999). The number of measures was reduced by around two thirds for reasons of economy, which is especially important in light of the aim of developing a measurement approach that practitioners could adopt. For each aspect, participants are asked how much they agree or disagree with two statements on a five point scale. For example, for integrity, the two statements are "This company seems to try hard to be fair in dealings with others" and "Sound principles seem to guide this company's behaviour."

Trust measures – Expressive measure of behavioural intentions

Trusting behaviour can take many forms. Making a purchase often involves trusting a company, although, as discussed above, the purchaser may not reflect very much on their decision. However, the trustworthiness of a company may not be the only factor in a purchase decision: we could imagine a situation where a consumer only considers a set of reputable sellers, but then makes their choice within that set based on factors other than trust (Doney & Cannon, 1997). Businesses have other trust relationships with the public: as employers to

employees, as investments to investors (Pirson & Malhotra, 2011; Pirson et al., 2014, 2017) and as the subjects of government regulation that is ultimately accountable to voters (Bachmann & Hanappi-Egger, 2014; OECD, 2017a; Poppo & Schepker, 2014). Based on this, four new items were created to represent purchase consideration, willingness to work for a company, willingness to invest in a company, and support for tighter regulation of a company (reverse scored). Direct questions about future consideration, work, or investment decisions could be irrelevant for many participants in a poll of the general public: for example, few retirees might expect to work for a company in the future, while few on low incomes might expect to purchase a very expensive brand. This meant that the items were phrased in general terms, for example, “I would be pleased if a friend or family member invested in this company’s shares”. The scale used, attempting to capture the binary nature of behaviours, was simply agree, disagree, or don’t know (operationalised as a non-answer). As noted above, while all these behaviours involve some element of trust, trust is not expected to be the only, or even the most important, factor in determining them. Trust is imagined as one element of these decisions, separate from whether, for example, someone feels a product is desirable (The full questionnaire is provided in Appendix 1).

Incentives

Participants received a small incentive for completing the survey¹⁵ but were also told the following when they reached the risk-based exercises:

“The next six questions are an opportunity to make some extra ... points.

In one year's time, we will randomly choose one of the [participants] and look at how they answered these six questions. We will then see what has happened over the year, because the number of points they win depends on what happens in the world over the next 12 months. With each question, there's an opportunity to earn up to 6,000 ... points: so in total over the next few questions you could 36,000 points - worth over £280 - if you are the randomly chosen [participant].”

A high incentive offered as part of a lottery has been found to be a compelling way of incentivising experiments (Bolle, 1990), even if the payoff must suffer some time discounting in this game. Johnson and Mislin (2011) found that this practice was used in around one third of trust game experiments in their meta-analysis, although they do find this systematically reduces the presentation of trust in an interpersonal context.

There is a small element of deception in the methodology. Rather than waiting for a year to elapse and checking which events did occur, the randomly chosen participant is simply awarded the maximum value advertised (£288). The advantage to this approach is that it leaves no loose ends and does not put the author in the position of having to judge which

¹⁵ At least 50 “mingle points”, the standard payment currency for panel members on Respondi’s panel. When a panel member has accumulated 2,000 mingle points they can exchange them for cash, digital shopping vouchers or turn them into a charitable donation. 1,000 mingle points is equivalent to £8.00 GBP

events occurred and which did not. For the randomly chosen participant, this deception is to their financial advantage: their choices are automatically made optimal and they have no delay to wait for their payment. For the participants who are not chosen, there is no financial penalty that stems from the deception. The main disadvantage is the effect on research of this nature: if this measurement approach were to be repeated so regularly that many participants learned that their choices did not affect the payoff structure, they could cease to pay attention to their choices. To reduce the risk of this occurring, the winning participant was informed that this was the first study of its kind and that the decision to pay out the full £288 at an early date was due to its pilot nature, and might not be repeated if the methodology was used again in the future.

Response times

To examine H1.4, it is necessary to measure the time that participants take to complete the different risk-based trust tasks. Two response time variables are calculated: the mean of the two risk-based trust tasks related to ability, and the mean of the four risk-based trust tasks related to benevolence or integrity. The data is divided by sector, as half of the risk-based tasks are sector specific.

Response time is left uncontrolled: participants could take as long as they wish, and they were not given a deadline to complete each task. However, differences in response times have been associated with the prevalence of different biases even when response time is not controlled (Evans & Curtis-Holmes, 2005). The time participants take to complete the task may be subject to random noise – such as computer latency – or individual differences in, for

example, reading speed. This limits the conclusions which can be drawn compared to, for example, an experimental design where the time allowed is a controlled variable.

In any response time-based analysis, we need to consider the difficulty of the problem as a potential influence on response times (see Alós-Ferrer, 2018, for a review and summary of this challenge from a dual-processing perspective). In this case, the implication from the argument above is that supposedly affective trust tasks, based on judgements of benevolence and ability, should be easier than supposedly cognitive trust tasks. Where the incentives, the familiarity of the target, and all other factors are equal, they should take less time. However, this analysis would be confounded if tasks related to ability were systematically easier or more difficult for some other reason. The design of the tasks has sought to make them of equal difficulty, but of course this cannot be precise without being measured separately. One reassurance, however, is that this hypothesis will be examined over all three sectors, which means there is some variation in the tasks. If the same pattern is found in all three sectors, it is less likely to be the result of random variation in the difficulty of the tasks. The text for each risk-task was the same 109 words plus the description of the specific risk, which varied slightly in word length (from 11 to 18 words).

RESULTS

Table 2.1 Summary of results by company

Means (and standard deviations) except where stated. A fuller table is provided in the Appendix 2 Table A3.

	<i>British Airways</i>	<i>Emirates</i>	<i>Ryanair</i>	<i>JP Morgan</i>	<i>Nationwide</i>	<i>Virgin Money</i>	<i>Amazon</i>	<i>Carphone Warehouse</i>	<i>John Lewis</i>
n*	230	222	230	211	227	230	234	231	227
Positivity (Scale 1, 0, -1)	0.37 (0.62)	0.26 (0.56)	-0.21 (0.69)	0.01 (0.40)	0.39 (0.53)	0.12 (0.54)	0.61 (0.58)	0.12 (0.58)	0.44 (0.63)
Familiarity (4 point scale)	2.92 (0.80)	2.48 (0.90)	2.91 (0.88)	2.03 (0.91)	2.85 (0.88)	2.25 (0.95)	3.59 (0.58)	2.91 (0.79)	3.05 (0.88)
Expressive measure of trust (5 point scale, averaged across four items)	3.73 (0.84)	3.69 (0.85)	2.77 (1.15)	3.31 (0.82)	3.78 (0.92)	3.46 (0.82)	3.96 (0.85)	3.37 (0.96)	3.98 (0.82)
Average transfer in the risk- based trust exercises (Across six gambles, up to a maximum of £48 per gamble**)	£16.30 (£12.85)	£17.86 (£12.89)	£13.22 (£11.85)	£17.54 (£12.52)	£20.13 (£13.06)	£18.97 (£13.61)	£17.16 (£12.54)	£15.46 (£12.78)	£19.10 (£13.87)
Cross-sector risk-based ability transfer (Up to a maximum of £48**)	£16.28 (£15.99)	£17.46 (£15.25)	£13.98 (£15.49)	£17.63 (£16.57)	£16.92 (£14.56)	£18.52 (£16.84)	£16.67 (£16.63)	£13.51 (£14.75)	£16.81 (£15.93)
Cross-sector risk-based benevolence transfer (Up to a maximum of £48**)	£19.30 (£17.71)	£22.22 (£17.91)	£12.38 (£14.98)	£18.31 (£15.46)	£22.94 (£16.75)	£21.65 (£17.20)	£20.41 (£17.03)	£16.05 (£16.70)	£21.20 (£17.46)
Cross-sector risk-based integrity transfer (Up to a maximum of £48**)	£19.93 (£17.65)	£18.86 (£16.11)	£14.19 (£15.83)	£19.56 (£16.63)	£22.84 (£17.38)	£20.19 (£16.89)	£16.97 (£15.62)	£17.14 (£16.83)	£20.78 (£18.00)

*Following pre-registered exclusions applied as described above. **Experimental currency of 'mingle points' is converted to GBP at a 1,000 points to £8 ratio.

NB: Note that sector-specific risks are not comparable across different sectors, as shaded above.

In this section, we first establish whether or not participants are using the risk-based measure as intended. What follows is then an examination of the practical advantages of the risk-based measure: does it tell us something different from the expressive measure? This is examined firstly in terms of the rank-order of different companies in terms of trust, and then secondly in terms of different aspects of trust (e.g., ability). Following this, the formal hypotheses are tested: looking at the correlation between the different measures of trust, the ability to predict behavioural intentions, and the link with positivity and reaction-time. Finally, an additional piece of exploratory research looks at the structure of the data and how well it fits with models of trust that propose two or three underlying aspects.

Confirming that participants are using the risk-based measure as intended

One possible concern with the risk-based measure is that participants are only sensitive to the risk events themselves, and not to the companies they relate to. However, as described in the section below on the relative standing of the different companies, we do see significant differences between different companies on the risk-based measure. An opposite concern would be that participants are only sensitive to the company, and insensitive to the type of risk being presented. In the section below on comparing ability, benevolence, and integrity, we find that there are often significant differences depending on whether or not a particular risk event is associated with ability, benevolence or integrity. Taken together, this strongly suggests that participants can be expected to be sensitive to both the company and the risk event presented in the risk-based measure.

The risk-based measure is obviously more complicated than a standard survey, and so there might be some concerns that many participants are failing to understand the task that is being

set. The average time each participant took to complete a risk-based task was recorded ($M=16.74$ seconds, $SD= 9.85$ seconds). Excluding any participant whose time on any task was more than two standard deviations over the mean ($n=276$) does not make a large difference to the central tendency or variance ($M= 16.74$, seconds $SD=9.79$ seconds). If the task was proving too difficult, we might expect to see differences between the average times taken for participants with different levels of education. However, even after excluding outliers, there are no statistically significant differences in the mean times people with different educational backgrounds took to complete the survey, $F(4, 1,761) = 1.166, p=.324$ ¹⁶.

Each participant rated all 9 companies on the expressive measure of trust (ET). As a result, we can compare the ratings given to companies when they were the target company and when they were not. As shown in Appendix 2 (Table A1), this comparison often shows a significant increase in expressive trust for companies which have been the target. This suggests that assessing a company in greater detail, with a mixture of risk-based, expressive, and behavioural intention questions, has, on average, a small positive effect on expressive trust. This could be a “mere exposure” effect (Zajonc, 1980), where people become more positive about a stimulus as they become exposed to it, as the participants would have been focussed on the target company for some extra time. Alternatively, it could be that focussing on questions of trust for longer leads participants, on average, to reflect more positively on the trustworthiness of these targets. This would be very different from the behaviour found in some interpersonal trust research, where greater reflection leads to reduced trust (Critcher & Dunning, 2011).

¹⁶ There are also no significant differences in the variance for each educational group, Levene’s Test, $F(4, 1761) = 0.274, p=.895$.

As shown in Figure 2.1, the risk-based trust measures, the expressive measures of ability, benevolence, and integrity, and the expressive measures of behavioural intentions were presented in a random order, with the measure of expressive trust always coming last. If we measure risk-based trust as the normalised average amount transferred on the cross-sector risk tasks, there are no significant differences by presentation order on risk-based trust, $F(4, 2,037) = 1.342, p = .252$ or the measure of trusting behavioural intentions $F(4, 1700) = 1.689, p = 0.15^{17}$.

Practical advantages of a risk-based trust measure: different rank-based insights into consumer trust

Table 2.1 summarises the relative standing found for each of the nine companies in absolute terms. For the subsequent analysis, the data is divided by sector and then turned into normalised z-scores with a mean of zero by subtracting the sector mean for each item, dividing by the standard deviation, and then taking a mean across the relevant items for each metric. The reason for this is that, in the risk-based trust exercises, no assumption is made that the risks are equally likely. If we believe that, for example, an IT problem is more likely than a reprimand over misleading advertising, then a £1 ‘bet’ against the former is not the equivalent degree of trust as a £1 ‘bet’ against the latter. To aid comparison, this process of normalisation is used for all of the measures of trust, whether risk-based or not. The result is that the mean of each composite metric is always zero, but the standard deviation is usually

¹⁷ Excludes order effects occurring after the measure has been taken as logically impossible. Similar results, not reported, are found when applying the same analysis to the airline and financial services data, created in the same way as described in the following section. On the risk-based measure there are significant differences are found in the retail data, $F(4, 687) = 3.18, p = .013$.

less than one because the variance is lower across the several items than it is for a single item¹⁸.

Two metrics are then created: a mean score for all six risk-based transfers (RBT), $a_{\text{airline}} = .88$, $a_{\text{fs}} = .88$, $a_{\text{retail}} = .88$, and a mean score for the three expressive items (ET) such as “This company delivers what it promises”, $a_{\text{airline}} = .94$, $a_{\text{fs}} = .92$, $a_{\text{retail}} = .91$. The average scores for each company are then shown in Figure 2.2 and a company-by-company summary is given in Table 2.2. In the Appendix, Table A2 provides further detail, and Figure A1 shows the distribution of each trust measure: in brief, it shows that while the mean levels of trust differ, the distributions for each sector are similar, with the exception of one firm, Ryanair, which has an unusually flat and positively skewed distribution on the expressive trust measure and the highest rate of refusal to take up any of the risk-based gambles.

In the airline data ($n=682$), the risk-based measure confirms the findings on the expressive measure. There are significant differences between the different companies on both the risk-based, $F(2, 679) = 7.72, p < .001$, and the expressive measures, $F(2, 679) = 72.81, p < .001$ ¹⁹. As detailed in Table 2.2, pairwise comparisons on both the expressive and the risk-based trust measures produce the identical finding: that Ryanair is the outlier, with less trust than British Airways and Emirates.

¹⁸ The need for this transformation was only identified after the pre-registration of Study 1. It is repeated in Study 2 and was included in the pre-registration for that experiment.

¹⁹ There are significant differences between of the variance for different companies on the expressive measure, Levene’s Test, $F(2, 679) = 16.033, p < .00$, violating the assumption of homogenous variance. However, using a Kruskal-Wallis test, $\chi^2(2) = 106.68, p < .001$, or using trimmed means as in Wilcox (2017), $F(2, 263) = 43.420, p < .001$, produces the same result.

Table 2.2. Pairwise comparisons between trust in the different companies*

Two-sided t-tests were performed and resulting *p* values are shown, using Holm's (1979) correction. In **bold** where $p < .05$. Means and standard deviations of the normalised variables are also shown**.

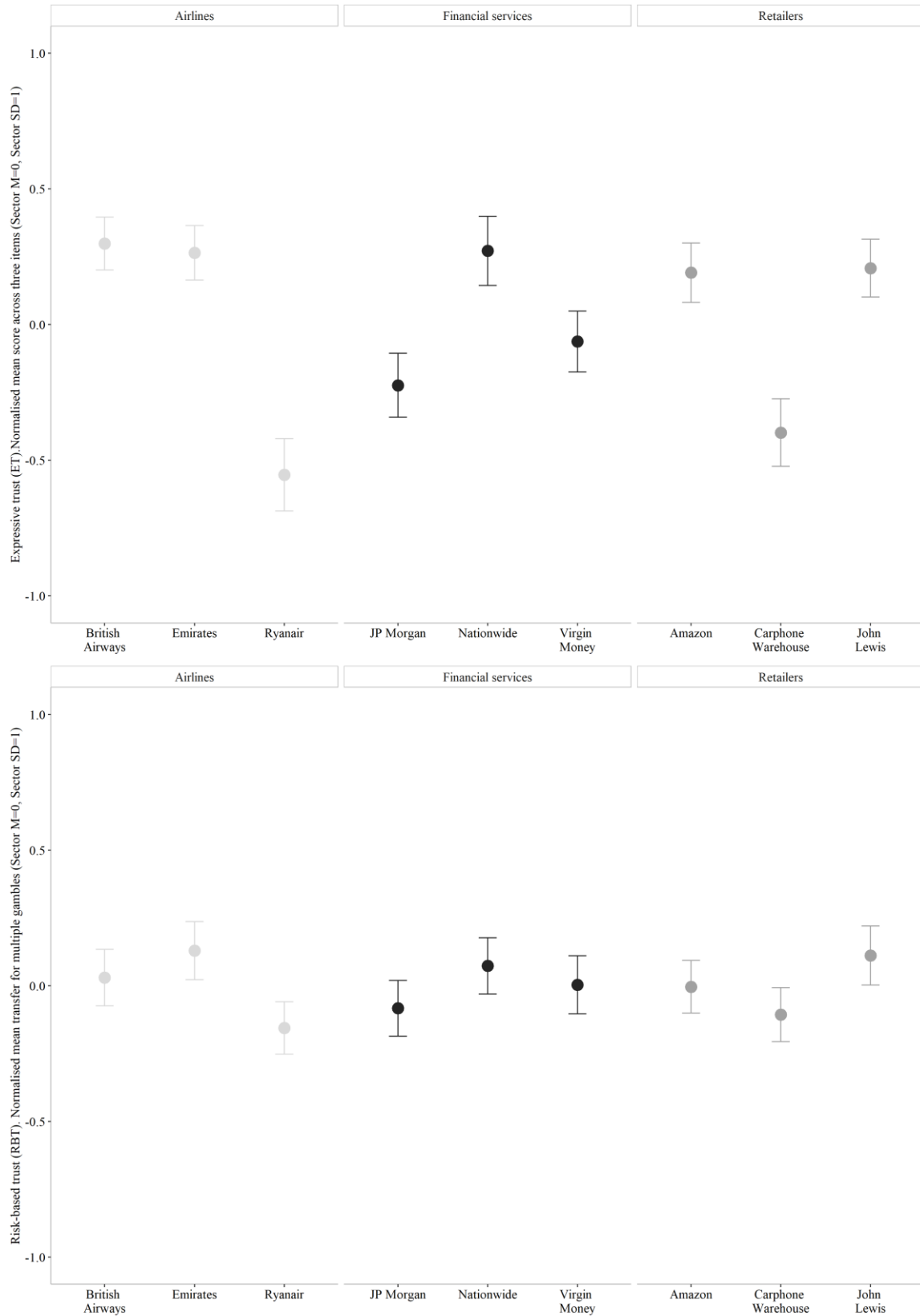
	Expressive trust (ET)			Risk-based trust (RBT)		
Airlines						
	British Airways	Emirates	Ryanair	British Airways	Emirates	Ryanair
	M= 0.30, SD= 0.75	M= 0.26, SD= 0.76	M= -0.55, SD= 1.03	M= 0.03, SD= 0.8	M= 0.13, SD= 0.81	M= -0.16, SD= 0.74
British Airways		0.674	<.001		0.179	0.023
Emirates	0.674		<.001	0.179		<.001
Ryanair	<.001	<.001		0.023	<.001	
Financial services						
	JP Morgan	Nationwide	Virgin	JP Morgan	Nationwide	Virgin
	M= -0.22, SD= 0.87	M= 0.27, SD= 0.97	M= -0.06, SD= 0.86	M= -0.08, SD= 0.76	M= 0.07, SD= 0.79	M= 0, SD= 0.83
JP Morgan		<.001	0.062		0.119	0.504
Nationwide	<.001		<.001	0.119		0.504
Virgin	0.062	<.001		0.504	0.504	
Retail						
	Amazon	Carphone Warehouse	John Lewis	Amazon	Carphone Warehouse	John Lewis
	M= 0.19, SD= 0.85	M= -0.4, SD= 0.96	M= 0.21, SD= 0.82	M= 0, SD= 0.75	M= -0.11, SD= 0.77	M= 0.11, SD= 0.83
Amazon		<.001	0.835		0.23	0.23
Carphone Warehouse	<.001		<.001	0.23		0.009
John Lewis	0.835	<.001		0.23	0.009	
*Cross-sector comparisons are included in the Appendix (Table A2).						
** Normalised so M=0, SD=1 for each sector on each item, then averaged.						

In the financial services sector ($n=668$), the two types of measure paint different pictures. There are significant differences between the companies on the expressive measure, $F(2, 665) = 17.3, p < .001$. As detailed in Table 2.2, the pairwise comparisons show that Nationwide is the outlier on the expressive measure, more trusted than either of the other two firms. On that same expressive measure, Virgin Money can almost claim an advantage over JP Morgan but it does not quite meet standard threshold for significance, $p = .062$. However, there are no significant differences between the firms on the risk-based measure, $F(2, 665) = 2.127, p = .12$.

In the retail data ($n=692$), the impression gained of the ranks between companies depends on the measure used. There are significant differences between the different companies on both the risk-based, $F(2, 689) = 4.427, p = .012$, and the expressive measures, $F(2, 689) = 35.75, p < .001$ ²⁰. On the expressive measure, Carphone Warehouse is the outlier: significantly less trusted than either Amazon or John Lewis. However, looking only at the risk-based measure produces a different picture: there is only a significant difference between the most trusted, John Lewis, and the least trusted, Carphone Warehouse. These comparisons are shown in detail in Table 2.2.

²⁰ There are significant differences between of the variance for different companies on the expressive measure, Levene's Test, $F(2, 689) = 3.082, p = .046$, violating the assumption of homogenous variance. However, using a Kruskal-Wallis test, $\chi^2(2) = 61.528, p < .001$, or using trimmed means as in Wilcox (2017), $F(2, 271.89) = 32.793, p < .001$, produces the same result.

Figure 2.2. Mean trust by company on two different measures



Trust measures are normalised so $M=0$, $SD=1$ for the sector on each item, then averaged

Error bars show 95% confidence interval for the mean.

Sector-specific risks are used so comparisons between sectors are not possible.

Another way of approaching this question is to look at all nine companies together ($N=2,042$). This means using a risk-based measure based on the average transfer for the three cross-sectoral risks, normalised as before, $a = .81$. The expressive trust measure is formed from the same three questions, $a = .92$, but both measures are now based on normalisations against the entire dataset. Unsurprisingly, there are significant differences between the companies on the risk-based measure, $F(8, 2,033) = 6.084, p < .001$, and the expressive measure, $F(8, 2,033) = 41, p < .001$. With nine companies in this dataset, there are a 36 pairwise comparisons that can be made (shown in Appendix Table A2). Even using Holm's (1979) correction for multiple hypothesis testing, such a large number of pairwise comparisons might be expected to throw up some Type I errors. However, what we are interested in here is the difference between these comparisons across the two measures. 25 of these pairs are found to be significantly different on the expressive measure but only nine are found to be significantly different on the risk-based measure. While some of these results might be Type 1 errors, the pattern suggests that there are more differences between firms on the expressive measure than on the risk-based measure. As discussed further below, it is an open question whether the apparent extra sensitivity of the expressive measure is a potential advantage or a potential distraction.

Practical advantages of a risk-based trust measure: different aspect-based insights into consumer trust

As noted earlier, as well as knowing which is the most trusted brand in a sector, it is often useful for businesses to know if they perform especially well or badly on some aspect of trust, such as ability, benevolence or integrity. To examine this question, the survey included expressive measures of each of these aspects: two items for each aspect which are then averaged. To provide a risk-based comparison, the six risks each participant examined are broken down into three pairs, each pair designed to reflect one aspect, and an average taken across the two. As before, the data is divided by sector and then turned into normalised z-scores with a mean of zero for each item before they are averaged together.

The following analysis then looks at how companies performed on these different questions. Note that this analysis is within-subjects: taking all the participants who looked at one company and examining whether they risked more money on or rated the company differently, depending on whether the question focused on ability, benevolence or integrity. The results are summarised in Figure 2.3 and Table 2.3. Table 2.4 summarises all these findings by company and shows where the two measures offer differing conclusions.

Table 2.3. Pairwise comparisons between different aspects of trust using two different measurement approaches

Two-sided t-tests were performed and resulting *p* values are shown, using Holm's (1979) correction. In **bold** where $p < .05$. Means and standard deviations of the normalised variables are also shown.*

	<i>Expressive measures</i>			<i>Risk-based measures</i>		
British Airways	Ability	Benevolence	Integrity	Ability	Benevolence	Integrity
	M= 0.27 SD= 0.78	M= 0.18 SD= 0.8	M= 0.25 SD= 0.83	M= 0.03 SD= 0.9	M= -0.01 SD= 0.84	M= 0.07 SD= 0.91
Ability		0.03	0.49		0.53	0.53
Benevolence	0.03		0.07	0.53		0.21
Integrity	0.49	0.07		0.53	0.21	
Emirates	Ability	Benevolence	Integrity	Ability	Benevolence	Integrity
	M= 0.25 SD= 0.79	M= 0.25 SD= 0.79	M= 0.28 SD= 0.77	M= 0.12 SD= 0.88	M= 0.17 SD= 0.9	M= 0.1 SD= 0.92
Ability		0.97	0.82		0.51	0.59
Benevolence	0.97		0.82	0.51		0.34
Integrity	0.82	0.82		0.59	0.34	
Ryanair	Ability	Benevolence	Integrity	Ability	Benevolence	Integrity
	M= -0.51 SD= 0.99	M= -0.42 SD= 0.98	M= -0.52 SD= 0.97	M= -0.14 SD= 0.87	M= -0.16 SD= 0.83	M= -0.16 SD= 0.83
Ability		0.11	0.83		1	1
Benevolence	0.11		0.03	1		1
Integrity	0.83	0.03		1	1	
JP Morgan	Ability	Benevolence	Integrity	Ability	Benevolence	Integrity
	M= -0.13 SD= 0.87	M= -0.2 SD= 0.83	M= -0.22 SD= 0.82	M= -0.02 SD= 0.92	M= -0.14 SD= 0.81	M= -0.09 SD= 0.79
Ability		0.49	0.26		0.02	0.24
Benevolence	0.49		0.6	0.02		0.29
Integrity	0.26	0.6		0.24	0.29	
Nationwide	Ability	Benevolence	Integrity	Ability	Benevolence	Integrity
	M= 0.15 SD= 0.97	M= 0.23 SD= 0.97	M= 0.26 SD= 1	M= 0 SD= 0.85	M= 0.12 SD= 0.93	M= 0.1 SD= 0.89
Ability		0.05	0.01		0.06	0.06
Benevolence	0.05		0.4	0.06		0.68
Integrity	0.01	0.4		0.06	0.68	
Virgin Money	Ability	Benevolence	Integrity	Ability	Benevolence	Integrity
	M= -0.03 SD= 0.91	M= -0.05 SD= 0.88	M= -0.06 SD= 0.95	M= 0.02 SD= 0.95	M= 0.01 SD= 0.89	M= -0.02 SD= 0.87
Ability		1	1		1	1
Benevolence	1		1	1		1
Integrity	1	1		1	1	
Amazon	Ability	Benevolence	Integrity	Ability	Benevolence	Integrity
	M= 0.33 SD= 0.78	M= 0.05 SD= 0.92	M= -0.09 SD= 0.98	M= 0.03 SD= 0.87	M= 0.03 SD= 0.85	M= -0.07 SD= 0.83
Ability		<.001	<.001		1	0.08
Benevolence	<.001		<.001	1		0.08
Integrity	<.001	<.001		0.08	0.08	

Carphone Warehouse	Ability	Benevolence	Integrity	Ability	Benevolence	Integrity
	M= -0.36 SD= 0.91	M= -0.21 SD= 0.88	M= -0.17 SD= 0.86	M= -0.11 SD= 0.84	M= -0.15 SD= 0.85	M= -0.07 SD= 0.89
Ability		<.001	<.001		0.69	0.69
Benevolence	<.001		0.3	0.69		0.21
Integrity	<.001	0.3		0.69	0.21	
John Lewis	Ability	Benevolence	Integrity	Ability	Benevolence	Integrity
	M= 0.03 SD= 0.97	M= 0.16 SD= 0.88	M= 0.27 SD= 0.9	M= 0.08 SD= 0.89	M= 0.12 SD= 0.94	M= 0.14 SD= 0.93
Ability		<.001	<.001		0.79	0.58
Benevolence	<.001		<.001	0.79		0.79
Integrity	<.001	<.001		0.58	0.79	
* Normalised so M=0, SD=1 for each sector on each item, then averaged.						

For two companies, there are no significant differences between how they perform on ability, benevolence and integrity, regardless of which metrics are used. The first is Emirates: neither risk-based aspects, $F(2,442)=1.431, p=.241$, nor expressive aspects are significantly different, $F(2,442)=0.769, p=.464$. The second is Virgin Money: neither the risk-based measure, Huyn-Feldt corrected²¹ $F(1.894, 433.726) = 0.372, p=.678$, nor the expressive measure, Huyn-Feldt corrected $F(1.934, 442.886) = 0.309, p=.727$, show significant differences between the different aspects.

For two other companies, by contrast, performance varies across ability, benevolence and integrity, whichever measure is used. For Nationwide the differences are significant on both on the risk-based measure, Huyn-Feldt corrected $F(1.94, 438.44) = 3.783, p=.025$, and the expressive measure, $F(2, 452) = 5.095, p=.006$. For Amazon there are also significant differences on both the risk-based, $F(2,466)=3.171, p=.043$, and the expressive measure, $F(1.890, 440.312)=38.116, p<.001$. As can be seen in detail in Table 2.3, the pairwise comparisons between the different aspects are similar for Nationwide, whichever metric is used, although some of the pairs very slightly exceed the standard threshold for statistical

²¹ Whenever Mauchly's test shows that the assumption of sphericity has been violated, the Huyn-Feldt adjusted p values and degrees of freedom are used instead.

significance. The pairwise comparisons are somewhat similar for Amazon, except that on the risk-based measure it does not see greater transfers when the risk-based task relates to ability than when it relates to benevolence.

There are then a series of companies which apparently perform differently across ability, benevolence, and integrity when using the expressive measures, but where there are no differences on the risk-based measures. For British Airways, the expressive measure shows some significant differences between the aspects, $F(2,458)=3.801, p=.023$, while the risk-based measure does not, $F(2,458)=1.705, p=.183$. Ryanair too has significant differences between the aspects on the expressive measures, Huyn-Feldt corrected $F(1.918, 439.222) = 4.211, p=.044$, but not on the risk-based measure, $F(2, 458)= 0.145, p=.865$. For Carphone Warehouse, we see significant differences between the trust aspects on the expressive measure, $F(2,460) = 19.082, p<.001$, but not on the risk-based measure, $F(2, 460) = 1.655, p=.192$. For John Lewis, there are significant differences between the trust aspects measured using the expressive metric, Huyn-Feldt corrected $F(1.892, 427.592) = 21.409, p<.001$, but not using the risk-based metric, Huyn-Feldt corrected $F(1.942, 438.892) = 0.949, p=.386$. The company-specific differences in performance on these different aspects are shown in Table 2.3.

Finally, JP Morgan is the opposite case, where there are significant differences between the transfers that participants make on the risk-based measure of different aspects, $F(2, 420) = 3.651, p=.003$, but there are no significant differences between the ratings given on the expressive aspect measures, Huyn-Feldt corrected $F(1.752, 367.92) = 1.680, p=.191$. As shown in Table 2.3, the risk-based trust measure suggests that JP Morgan is more trusted for its ability ($M=-0.021, SD=0.916$) than its benevolence ($M=-0.137, SD= 0.813$), $p=0.017$.

Figure 2.3. Mean scores for ability, benevolence, and integrity on two different measures

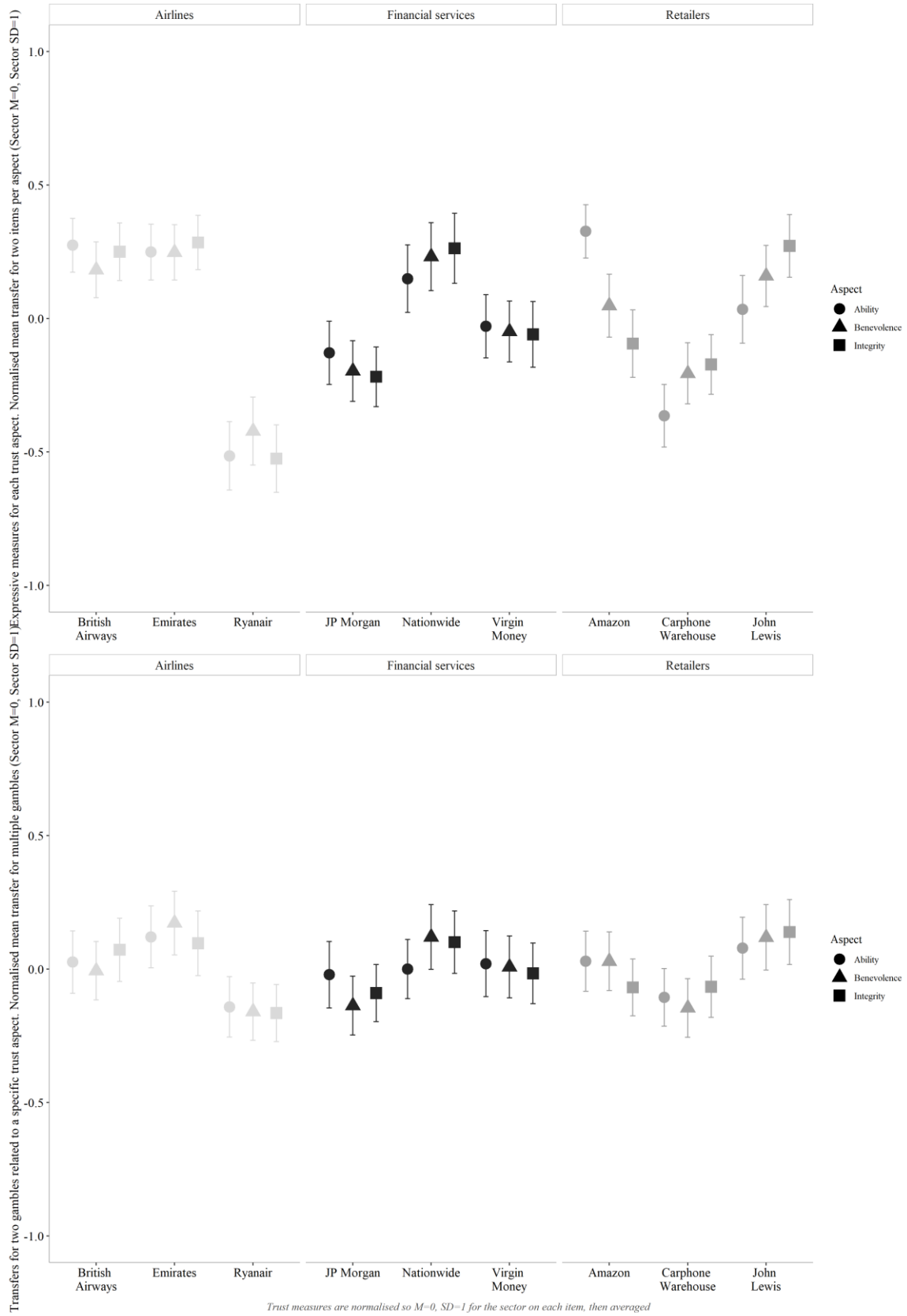


Table 2.4 Practical insights for each company from the new risk-based measure

<i>Company</i>	<i>Summary of findings from the expressive survey measures</i>	<i>Summary of findings from the risk-based measures</i>	<i>Additional insight from the new risk-based measure</i>
British Airways	More trusted than Ryanair and as trusted as Emirates. More trusted for its ability than its benevolence.	More trusted than Ryanair and as trusted as Emirates. Equally trusted for ability, benevolence, and integrity.	The expressive measure suggests British Airways performs better on ability than benevolence, but the risk-based measure questions this.
Emirates	More trusted than Ryanair and as trusted as British Airways. Equally trusted for ability, benevolence, and integrity.	More trusted than Ryanair and as trusted as British Airways. Equally trusted for ability, benevolence, and integrity.	Both measures produce the same results.
Ryanair	Less trusted than British Airways and Emirates. More trusted for benevolence than integrity.	Less trusted than British Airways and Emirates. Equally trusted for ability, benevolence, and integrity.	The expressive measure suggests Ryanair performs better on benevolence than integrity, but the risk-based measure questions this.
JP Morgan	Less trusted than Nationwide and close to being less trusted than Virgin Money. Equally trusted for ability, benevolence, and integrity.	As trusted as Virgin Money and Nationwide. More trusted for its ability than its benevolence.	The expressive measure suggests JP Morgan is less trusted than the competition but the risk-based measure questions this. The risk-based measure suggests JP Morgan performs better on ability than benevolence, but the expressive measure questions this.
Nationwide	More trusted than JP Morgan and Virgin Money. More trusted for its integrity than its ability.	As trusted as Virgin Money and JP Morgan. Close to being more trusted for its integrity than its ability.	The expressive measure suggests Nationwide is more trusted than the competition but the risk-based measure questions this.
Virgin Money	Less trusted than Nationwide but close to being more trusted than JP Morgan. Equally trusted for ability, benevolence, and integrity.	As trusted as Nationwide and JP Morgan. Equally trusted for ability, benevolence, and integrity.	The expressive measure suggests Virgin Money is less trusted than Nationwide but the risk-based measure questions this.

Amazon	<p>More trusted than Carphone Warehouse and as trusted as John Lewis.</p> <p>More trusted for ability than benevolence, and more trusted for benevolence than for integrity.</p>	<p>As trusted as Carphone Warehouse and John Lewis.</p> <p>Close to being more trusted for ability than for integrity.</p>	<p>The expressive measure suggests Amazon is more trusted than Carphone Warehouse but the risk-based measure questions this.</p>
Carphone Warehouse	<p>Less trusted than Amazon and John Lewis.</p> <p>More trusted for benevolence and integrity than for ability.</p>	<p>As trusted as Amazon but less trusted than John Lewis.</p> <p>Equally trusted for ability, benevolence, and integrity.</p>	<p>The expressive measure suggests Carphone Warehouse is less trusted than Amazon but the risk-based measure questions this.</p> <p>The expressive measure suggests Carphone Warehouse performs better on benevolence and integrity than ability but the risk-based measure questions this.</p>
John Lewis	<p>More trusted than Carphone Warehouse and as trusted as Amazon.</p> <p>More trusted for integrity than ability or benevolence.</p>	<p>More trusted than Carphone Warehouse and as trusted as Amazon.</p> <p>Equally trusted for ability, benevolence, and integrity.</p>	<p>The expressive measure suggests John Lewis performs better on integrity, than ability and benevolence but the risk-based measure questions this.</p>

Hypothesis testing: H1.1. The risk-based measure of trust will correlate significantly with the expressive measure of trust and trusting behavioural intentions

H1.1 looks at the correlation between the risk-based measure of trust and the more standard expressive measure of trust. Because some of the risk-based questions are sector-specific, these correlations are examined on a sector-by-sector basis. As can be seen in Figure 2.4, the correlations between risk-based trust and expressive-trust are significant but rather weak, whether we examine airlines, $r(680) = .286, p < .001$, financial services, $r(666) = .309, p < .001$, or retail, $r(690) = .248, p < .001$. While this might be surprising if the two measures are addressing the same concept in the same context, these correlation coefficients are consistent with those found between trust surveys and games in the interpersonal trust literature²². The interpretation put on this difference, expanded in greater depth below, is that the risk-based trust task itself changes the context, by introducing novelty, difficulty and extra motivation, thus making it less likely that participants will use the affect heuristic to form their trust judgements.

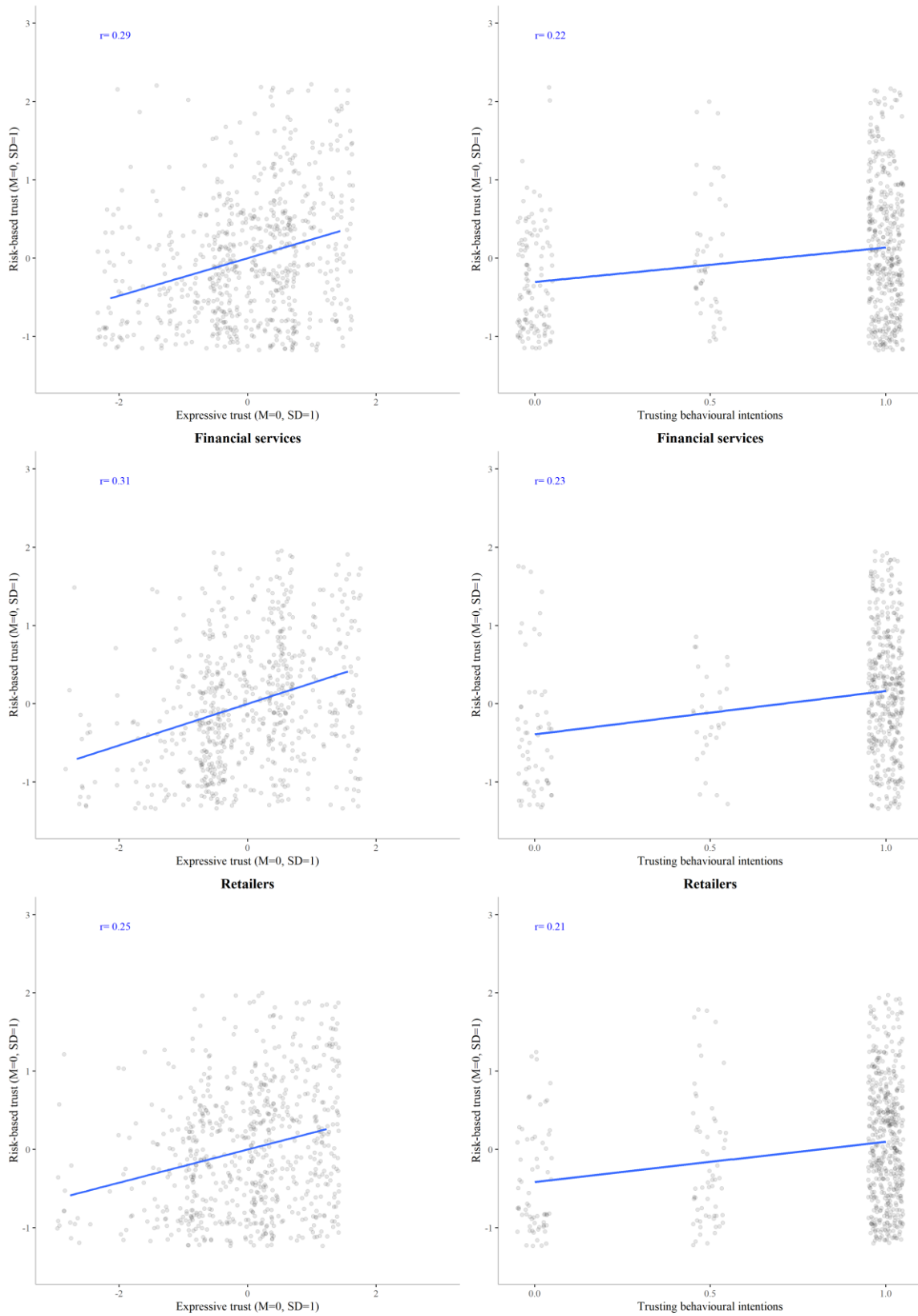
H1.1 also relates to the correlation between the risk-based measure of trust and the measure of trusting behavioural intentions. The original plan was that this measure would be an average of four items, relating to a participants' likelihood to purchase goods or services, to

²² Ben-Ner and Halldorsson (2010) found similarly weak correlations ($r = .20-.27$) between transfers in a classic trust game and survey measures of generalised trust. In Erle and colleagues' (2018) Experiment Two we see a similar correlation between trust game transfers and self-reported trust ($r = .24$) although this rises somewhat in Experiment Three ($r = .43$). Similarly, Carlsson and colleagues (2018) find the correlation between stated trust in an institution and trust game transfers to an employee of that institution can be similarly weak ($r = .21-.27$) although in the case of one institution, the electricity provider, they were somewhat stronger ($r = .37$). By contrast, Glaeser and colleagues (2000) found that correlations between surveys and trust games were weaker than those found in this study ($r = -.01-.19$).

work for the company, to invest in the company, or to support efforts to impose stricter regulations on the company. However, participants were offered a “don’t know” option and a larger number took it than had been envisioned: 1,045 (48%²³) participants said “don’t know” to the investment question, while 1,021 (47%) said “don’t know” to the regulation question. The questions on employment and consumption were answered by a substantially larger proportion of the participants: only 436 (20%) gave “don’t know” answers to both of these questions. Therefore, the measure of trusting behavioural intentions is restricted to those spheres: taking an average of the two binary measures where both are provided, using only one of the two if only one answer is available. This means that, unless otherwise noted, participants who did not answer these questions are excluded from any analysis involving trusting behavioural intentions. Having done this, the correlations between trusting behavioural intentions and risk-based trust are again significant but not particularly strong for airlines, $r(579) = .219, p < .001$, financial services, $r(502) = .232, p < .001$, or retail, $r(618) = .209, p < .001$.

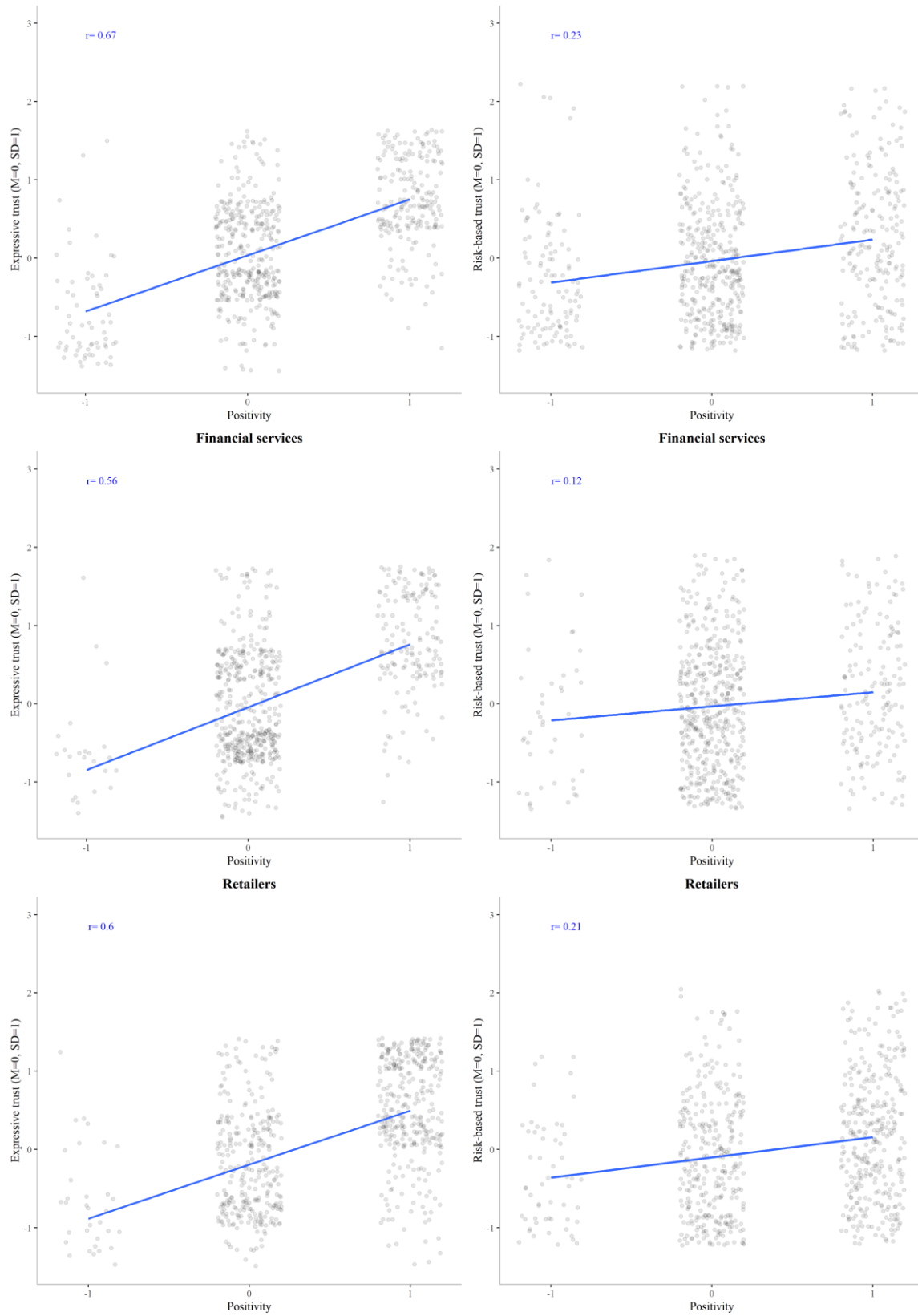
²³ These percentages are all calculated on the whole sample before exclusions, $N = 2,174$.

Figure 2.4. Correlations between the risk-based measure of trust and other measures of trust
Airlines



*Trust measures are normalised so $M=0$, $SD=1$ for each sector on each item, then averaged.
Points are jittered to avoid overplotting. Sector-specific risks are used so comparisons between sectors are not possible*

Figure 2.5. Correlations between positivity and the different measures of trust
Airlines



*Trust measures are normalised so $M=0$, $SD=1$ for each sector on each item, then averaged.
Points are jittered to avoid overplotting. Sector-specific risks are used so comparisons between sectors are not possible*

Hypothesis testing: H1.2. The risk-based measure of trust will contribute more to predicting trusting behavioural intentions than the expressive measures of trust, once other variables are controlled for.

Table 2.5. Summary of OLS regressions testing H1.2 Significant ($p < .05$) predictors in bold									
	<i>Airlines (n=520)</i>			<i>Financial services (n=465)</i>			<i>Retail (n=545)</i>		
	Model 1 ET only	Model 2 RBT only	Model 3 ET+ RBT	Model 1 ET only	Model 2 RBT only	Model 3 ET+ RBT	Model 1 ET only	Model 2 RBT only	Model 3 ET+ RBT
Expressive measure of trust (ET)	$\beta = 0.209$ $p < .001$	-	$\beta = 0.207$, $p < .001$	$\beta = 0.185$ $p < .001$	-	$\beta = 0.170$, $p < .001$	$\beta = 0.129$, $p < .001$	-	$\beta = 0.124$ $p < .001$
Risk-based trust measure (RBT)	-	$\beta = 0.041$ $p = .026$	$\beta = 0.008$ $p = .633$	-	$\beta = 0.089$, $p < .001$	$\beta = 0.047$ $p = .009$	-	$\beta = 0.044$ $p = .004$	$\beta = 0.025$ $p = .093$
Positivity	$\beta = 0.148$ $p < .001$	$\beta = 0.336$, $p < .001$	$\beta = 0.147$, $p < .001$	$\beta = 0.056$ $p = .079$	$\beta = 0.176$ $p < .001$	$\beta = 0.059$, $p = .063$	$\beta = 0.130$, $p < .001$	$\beta = 0.210$ $p < .001$	$\beta = 0.127$, $p < .001$
R^2	0.472	0.361	0.472	0.281	0.182	0.292	0.344	0.287	0.347
AIC	210.606	309.416	212.374	177.245	237.701	172.294	90.699	136.250	89.831
Table A4 in Appendix 2 provides the full specification of each model, including estimates of the intercept and correlates such as gender, which are included in each regression model, and the results of various diagnostic tests.									

To test H1.2, Ordinary Least Squares regression models²⁴ are created as reported in summary in Table 2.5, and then in more detail in the Appendix 2 Table A4. The data is once again divided by sector. In each model, the measure of trusting behavioural intentions forms the dependent variable. For each sector, three models are created: one using expressive trust as the explanatory variable (Model 1), one using risk-based trust (Model 2), and one using both

²⁴ The exercise was repeated as a logistic regression on a binary variable which took the value of one if a participant said they would purchase or work for the target company, and zero if they said they would neither work for or purchase from the company. This produced identical insights and so is not reported here.

measures (Model 3). Control variables on familiarity, customer status, propensity to trust businesses, gender and income are used in all three models as described in more detail in Appendix 2 Table A4.

In none of the sectors under examination does Model 2 exceed the explanatory power of Model 1, which prompts a rejection of H1.2: trusting behavioural intentions are not better predicted by the risk-based measure than the expressive measure. However, the rejection of H1.2 does lead to the conclusion that the expressive measure is a better predictor of behaviour. There is a greater similarity between an expressive measure of trust and expressive measure of behavioural intentions, in that both are unincentivised survey questions of the standard type. This could potentially mean that anything that causes participants to answer similar questions in similar ways would artificially strengthen the relationship between the expressive measure of trust and the measure of behavioural intentions, creating a common methods bias (Podsakoff et al., 2003)²⁵.

Using both measures produces a better model for the financial services and retail data, but the differences both in R^2 and in Akaike's Information Criterion (AIC), another measure of fit that compensates for the number of variables used, are quite small. One noteworthy point is that the beta weight attached to positivity in the regression models, across all three sectors, is greater when expressive trust is left out of the model. There is no similar effect when risk-based trust is not included in the model. This could be interpreted to mean that positivity and expressive trust are explaining a similar variance in the data - a point that will be explored further in testing H1.3.

²⁵ This caveat was foreseen and mentioned in the pre-registration of hypothesis H1.2.

Hypothesis testing: H1.3. The relationship between overall positivity and trust will interact with (i) the measurement technique (ii) educational qualifications (iii) familiarity

The contention of the ‘trusting fast and slow’ argument is that trust judgements will be substituted with like/dislike judgements when people rely heavily on intuitive Type 1 processes. To examine this more directly, we look at the new, more complex and more incentivised risk-based measure, and the standard expressive measure of trust, and see how they correlate with the simple measure of positivity that participants completed at the start of the survey. This is a particularly interesting result for the theoretical framework outlined here: as described in detail above, the correlation between liking and trusting is expected to be stronger when people use Type 1 processing.

As shown in Figure 2.5, the correlation between positivity and trust tends to be substantially stronger on the expressive measure than on the risk-based measure. Correlations between expressive trust and positivity are strong for airlines, $r(680)=.674$, financial services, $r(666)=.557$, and retail, $r(690)=.599$, all $p<.001$. This is in line or slightly below the correlations reported in three other studies mentioned in Chapter 1 which show correlations between an expressive measure of trust and a measure of overall positivity, sometimes called ‘brand affect’ or ‘brand liking’: they reported $r=.59$ (Chaudhuri & Holbrook, 2002); $r=.66$ (Chaudhuri & Holbrook, 2001); $r=.75-.80$ (Nicholson, Compeau, & Sethi, 2001), $r=.79$ (Sung & Kim, 2010) and $r=.89$ (Lau & Lee, 1999). The correlation between risk-based trust and positivity is weak for airlines, $r(680)=.234$, $p<.001$, financial services, $r(666)=.119$, $p=.002$, and retail, $r(690)=.207$, $p<.001$. A t -statistic can compare the relative strength of these dependent correlations (Field et al., 2011): the correlation with positivity is significantly

stronger on the expressive measure than on the risk-based measure for airlines, $t(679) = -1.752, p = .040$ (one-tailed), financial services, $t(665) = -5.491, p < .001$ (one tailed), but this only approaches significance for retail, $t(689) = -1.244, p = .107$ (one tailed).

Taken together with the regressions described above, this provides some quite compelling evidence that differences in positivity overlap much more strongly with differences in trust when a participant is using a traditional expressive survey technique than when they are using the new risk-based measure. It echoes Erle and colleagues' (2018) finding in an interpersonal trust context, where liking was strongly correlated ($r = .86-.87$) with self-reported trust but more weakly correlated with transfers in a trust game ($r = .18-.41$). The correlations here are also comparable to those found between risks and benefits of different activities and technologies in Finucane and colleagues' (2000) study of the affect heuristic: without time pressure, these varied from $r = -.44$ and $r = .21$.

People are expected to engage Type 2 processing more when dealing with something novel (Evans & Stanovich, 2013). Early in the survey participants were asked how familiar they were with the target company on a four-point scale, from very unfamiliar to very familiar. In the airline data, there was no main effect of familiarity on expressive trust, $F(1, 678) = 1.004, p = .317$, but there was a significant interaction effect between familiarity and positivity on expressive trust, $F(1, 678) = 4.190, p = .041$. The reverse is true in the financial services data, with a significant main effect of familiarity, $F(1, 664) = 19.093, p < .001$, but no interaction, $F(1, 664) = 0.413, p = .521$, and in the retail data, again with a significant main effect of familiarity, $F(1, 688) = 9.502, p = .002$, but no interaction, $F(1, 688) = 0.325, p = .569$.

To take this analysis further, the data is divided in two, with one group including all those who said they were familiar or very familiar with the target (67% of the participants in the airline group, 50% in financial services, and 84% in retail). As shown in Figure 2.7, in the airline data, the correlation between positivity and expressive trust for those who were familiar with their target company, $r(452)=.699, p<.001$, is significantly stronger than for those who were unfamiliar, $r(226)=.564, p<.001, z=2.770, p=.003$ (one tailed). We see the same pattern in the financial services data: there is a significantly stronger correlation when the target is familiar, $r(335)=.567, p<.001$, than when the target is unfamiliar, $r(329)=.372, p<.001, z=3.246, p<.001$. For the retail data, the story is similar: stronger correlations when the target is familiar, $r(582)=.575, p<.001$, than unfamiliar, $r(106)=.477, p<.001$, but the difference only approaches significance, $z=1.279, p=.100$ (one tailed). While these are not large differences in absolute terms, this is at least suggestive of a stronger overlap between positivity and expressive trust when people are dealing with a familiar target.

The relationship between positivity and trust appears to be unconnected to familiarity in the risk-based trust data. There are no significant interactions between familiarity and positivity in predicting risk-based trust for airlines, $F(1, 678)=0.067, p=.795$, financial services, $F(1, 664)=0.600, p=.434$, or retail, $F(1, 688)=0.241, p=.624$. For familiar targets, correlations between positivity and risk-based trust are similar, $r_{airline}(452)=.216, r_{financial\ services}(335)=.082, r_{retail}(582)=.217$, to those found with unfamiliar targets, $r_{airline}(226)=.266, r_{financial\ services}(329)=.085, r_{retail}(106)=.105$, and the differences are not significant in the airline data, $z=-0.656, p=.256$, financial services data, $z=-0.0414, p=.483$, or retail data, $z=1.085, p=.139$, (all one-tailed).

Continuing to assess the evidence for H1.3, there is the potential that participants with weaker abilities to deploy Type 2 processing would tend to rely on the “affect heuristic” more than

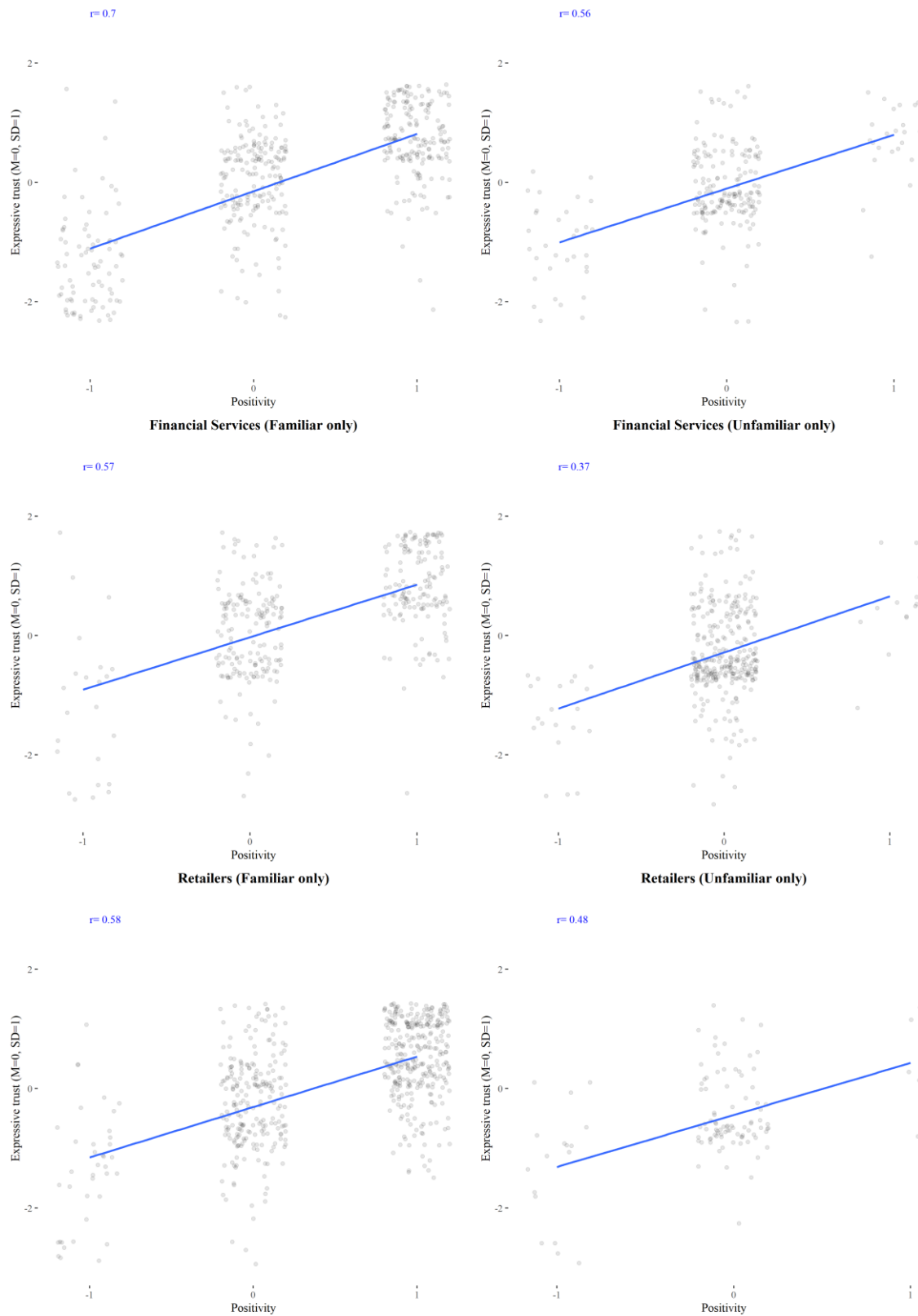
those with stronger cognitive abilities. Education is used as a proxy for cognitive ability to test this hypothesis. A self-reported measure of education with five levels is used, from i) No formal education or qualifications; ii) GCSEs or GNVQs or respective equivalents; iii) A levels or equivalents; iv) Undergraduate degree or professional qualification; v) Postgraduate degree or equivalent. There is an interaction between education and positivity towards retailers in predicting expressive trust, $F(1, 688)=5.446, p=.019$. In all the other cases there is no interaction: whether trust is measured using the traditional expressive metric or the new risk-based metric respectively, there are no education-positivity interactions in the airline, $F(1,678)=0.412, p=.521$, $F(1,678)=0.406, p=.524$, financial services, $F(1,664)=0.356, p=.551$, $F(1,664)=0.017, p=.896$, or retail data using the risk-based measure, $F(1,688)=0.053, p=.818$.

To build on this analysis, the data is now divided in two, based on graduating higher education or an equivalent professional qualification (43% in the airline data, 45% in the financial services data, and 43% in the retail data). As shown in Figure 2.8, in the airline data, there are no significant difference between the correlations for graduates and non-graduates on the expressive measure, $r(289)=.691$ and $r(389)=.659$, both $p<.001$, $z=0.765, p=.222$, or on the risk-based measure, $r(289)=.234$ and $r(389)=.229$, both $p<.001$, $z=0.078, p=.469$. Similarly, in the financial services data there are no significant difference between the correlations for graduates and non-graduates on the expressive measure, $r(298)=.584$, $r(366)=.532$, both $p<.001$, $z=0.968, p=.166$, or on the risk-based measure, $r(298)=.142$, $p=.014$, $r(366)=.097, p=.066$, $z=0.594, p=.276$. The story is the same in the retail data: no significant difference between the correlations for graduates and non-graduates on the expressive measure, $r(293)=.633$ and $r(395)=.577$, both $p<.001$, $z=1.156, p=.124$, or on the risk-based measure, $r(293)=.182, p=.002$ and $r(395)=.225, p<.001, z=-.590, p=.277$. Thus, there is very little evidence to suggest that education is affecting the degree of overlap

between trust and positivity. This is perhaps unsurprising when looked at alongside the finding mentioned earlier: that even participants with no qualifications completed the risk-based trust task in similar average times to those with postgraduate qualifications.

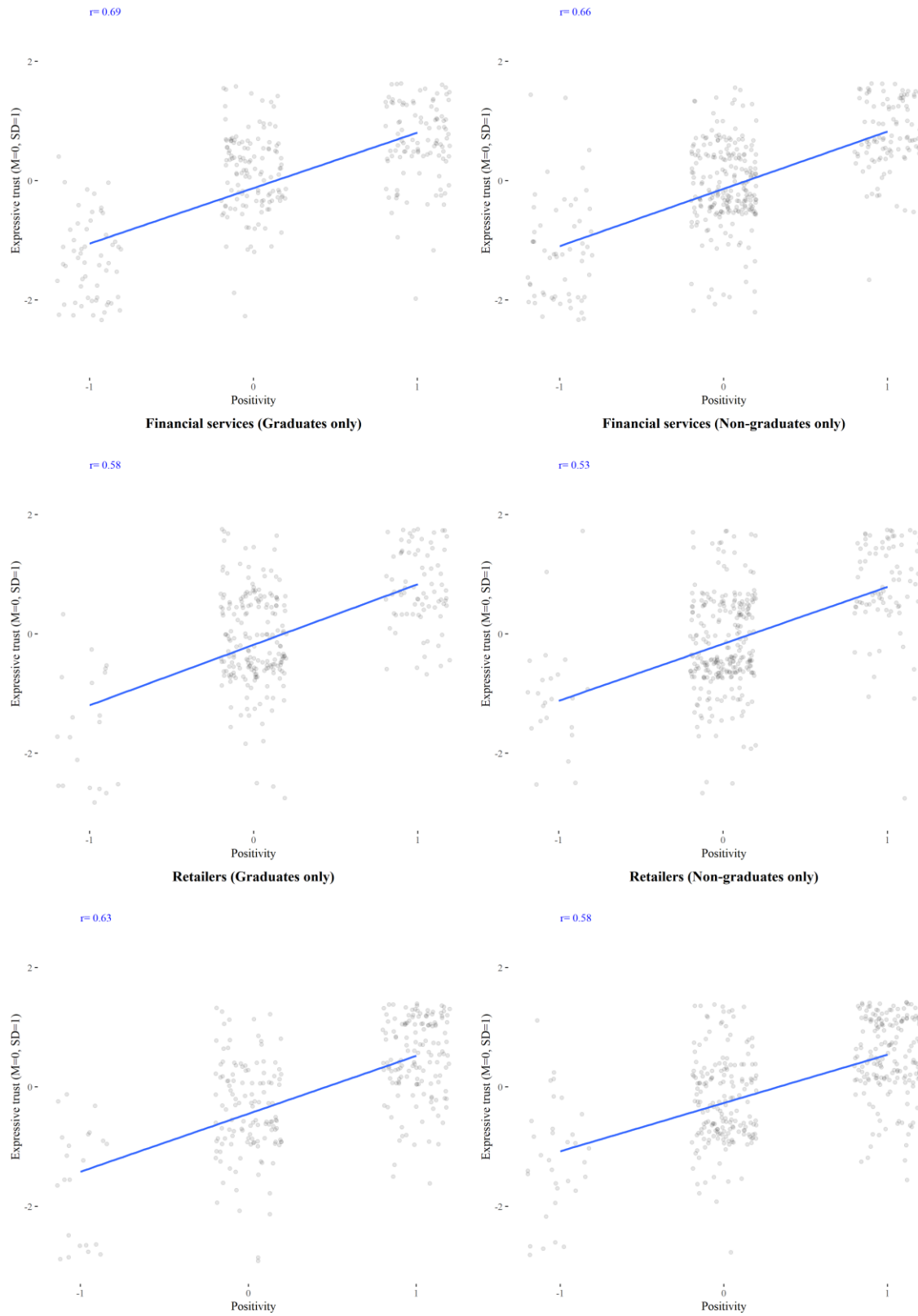
Finally, as discussed above, it might be expected that participants engage in Type 2 processing when they dislike a target. The study was not designed to test this hypothesis, as positivity only has a three point scale, making it difficult to observe a polynomial relationship. However, as shown in Figure 2.6, the variance in the expressive trust data appears to grow when a target is disliked. Levene's Test assesses the null hypothesis that variances in different groups are equal by conducting a one-way analysis of variance on the differences from the mean for each group (Field et al., 2011). Variance in expressive trust is significantly different at different levels of positivity for airlines, Levene's Test $F(2, 679)=3.910, p=.020$, financial services, $F(2,665)=4.155, p=.016$, and retail, Levene's Test $F(2,689)=7.623, p<.001$. On the risk-based measure, there are significant differences in the variance at different levels of positivity in the airline data, Levene's Test $F(2, 679)=6.077, p=.002$, but the variance is greater for the better liked companies. There are no differences in the variance in risk-based trust at different levels of positivity for either the financial services data, Levene's Test $F(2, 665)=0.195, p=.823$, or the retail data, Levene's Test $F(2, 689)=1.582, p=.206$. While not definitive, this might suggest that, when a participant is asked to look at a well-loved company and rate it on an expressive measure, they tend to form a homogeneous positive judgement, but that when they deal with a disliked company or a more complicated, risk-based measure, their judgements of trust and liking will vary. This is consistent with the findings of van 't Wout and Sanfey in the area of interpersonal trust (2008).

Figure 2.6. Correlations between positivity and expressive trust broken down by familiarity
Airlines (Familiar only) **Airlines (Unfamiliar only)**



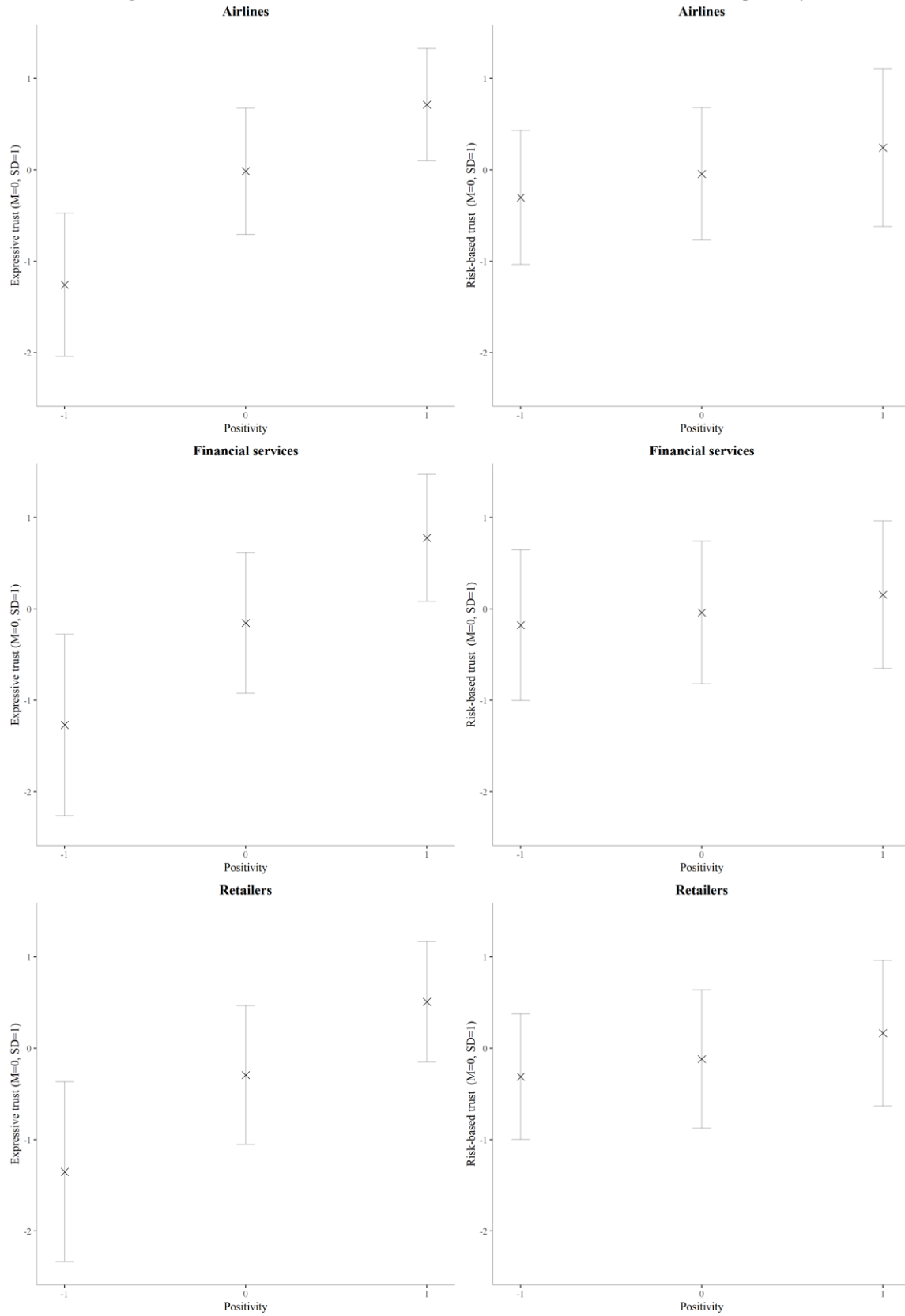
*Trust measures are normalised so $M=0$, $SD=1$ for each sector on each item, then averaged.
 Points are jittered to avoid overplotting. Sector-specific risks are used so comparisons between sectors are not possible*

Figure 2.7. Correlations between positivity and expressive trust broken down by education
Airlines (Graduates only) **Airlines (Non-graduates only)**



*Trust measures are normalised so $M=0$, $SD=1$ for each sector on each item, then averaged.
 Points are jittered to avoid overplotting. Sector-specific risks are used so comparisons between sectors are not possible*

Figure 2.8. Means and standard deviations for two measures of trust at different levels of positivity



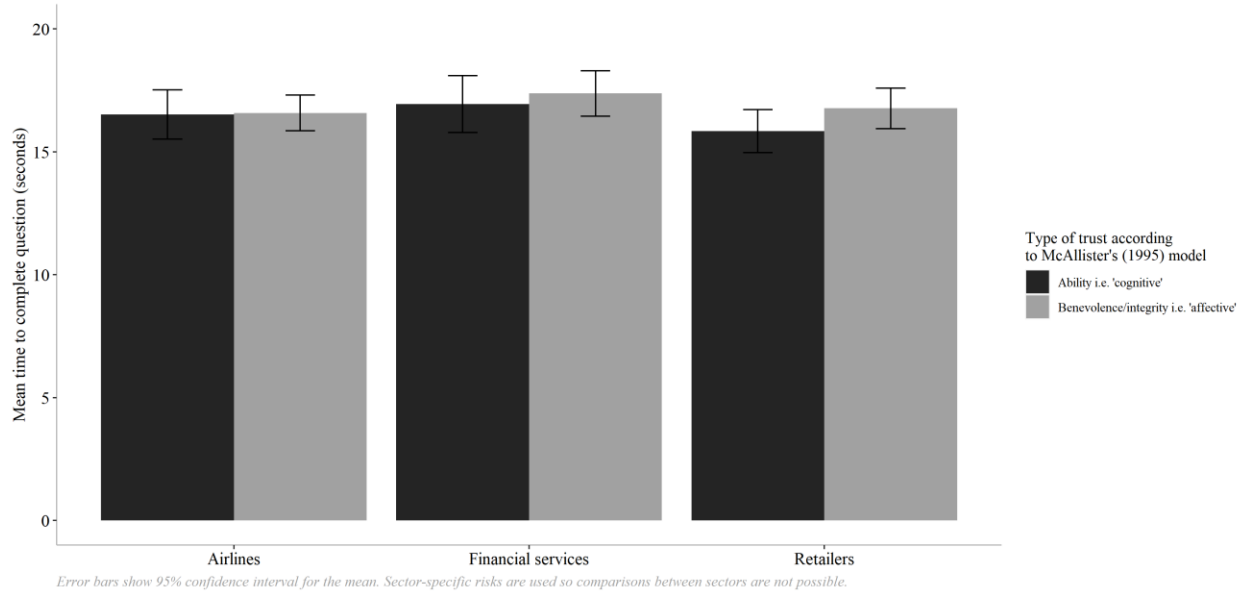
*Trust measures are normalised so $M=0$, $SD=1$ for each sector on each item, then averaged.
Error bars show ± 1 SD. Sector-specific risks are used so comparisons between sectors are not possible*

Hypothesis testing: H1.4. Decisions on risk-based trust that relate to ability will be significantly slower than other risk-based trust decisions.

As described above, trust formation is sometimes separated into two routes: affective, when risks are relational, and cognitive, when risks are performance related (McAllister, 1995). If affective responses are more accessible than cognitive judgements (Zajonc, 1980), then it seems plausible that they should happen more quickly. To test this hypothesis, as shown in Figure 2.9, the time each participant took to complete each risk-based judgement was recorded, again using data that had been sub-setted by sector. Two average times were calculated for each participant: one for the two ability based tasks, $M_{airline}=16.517$, $SD_{airline}=13.250$, $M_{financial\ services}=16.941$, $SD_{financial\ services}=15.304$, $M_{retail}=15.841$, $SD_{retail}=11.633$, and one for the four non-ability based tasks, $M_{airline}=16.581$, $SD_{airline}=9.682$, $M_{financial\ services}=17.371$, $SD_{financial\ services}=12.236$, $M_{retail}=16.766$, $SD_{retail}=10.982$. The supposedly affective judgements are not significantly faster in the airline, $t(681)=-0.130$, $p=.552$ one-tailed, financial services, $t(667)=-0.680$, $p=.752$ one-tailed, or retail data, $t(691)=-1.873$, $p=.969$ one-tailed.

These results provides some evidence against the idea that different kinds of trust are assessed by either affective or cognitive mental processes. It is not conclusive because reaction time is not a controlled variable and there may have been some differences in the difficulty of the different trust decisions which is not related to whether they are focussed on supposedly affective or cognitive trust. However, the consistency of the finding across all three sectors, which incorporated different specific tasks, counts against this objection.

Figure 2.9. Completion time differences for different risk-based trust questions related to different aspects of trust



Additional analysis - different aspects and common methods

Closing this section, the relationships between the different variables are examined using an exploratory factor analysis. The first step is to examine whether a single common factor can explain a large proportion of the variance – although, as noted by Podsakoff and colleagues (2003), this is not a sufficient test for the extent of common method bias. Again, this means splitting the data by sector to ensure comparability, but now looking at each risk-based exercise, each item in the expressive scales, and the measures of positivity, familiarity and customer status. A single common factor, using the maximum likelihood with varimax rotation, can explain 40% for the variance in the airline data, 38% in the financial services data, and 36% in the retail data. The questions on trusting behavioural intentions are excluded because of the issue with ‘don’t know’ answers discussed above.

This suggests that a multi-factor solution is more appropriate. How many factors? The survey has been designed around Mayer and colleagues’ (1995) model where trust has three aspects: ability, benevolence, and integrity. Each aspect was measured on both the expressive and the risk-based measure, while there was also a three-item general measure of expressive trust, unconnected to a specific aspect. Together, this would suggest four factors. In addition, we might expect familiarity to emerge as a single factor, based both on the explicit familiarity ratings and the customer status variable, if we assume that anyone will be highly familiar with the companies that they buy from. Finally, overall positivity or brand affect is defined as distinct from trust (Nicholson, Compeau, & Sethi, 2001; van der Merwe & Puth, 2014), although it might be highly correlated with trust or some of the three aspects.

Together, this would suggest that there should be six factors in the data: trust, ability, benevolence, integrity, positivity, and familiarity²⁶. Tables 2.6-2.8 show an exploratory factor analysis performed with a six-factor solution on the airline, financial services, and retail data respectively. As can be seen in those tables, in all three analyses, trust on the risk-based measure appears to be a single factor, distinct from both positivity and the other measures of trust. Positivity tends to load onto the same factor as the expressive trust measures and/or familiarity. There are some differences between the overall measure of expressive trust and the expressive measures of ability, benevolence, and integrity, but there is no suggestion that the three different aspects stand as two, let alone three, distinct factors, measured in either an expressive or risk-based way. This is explored further in Table A5 in the Appendix, which shows that there is little to indicate that the correlations are stronger between, for example, the risk-based measure of ability and the expressive measure of ability, than, for example, and the expressive measure of benevolence.

²⁶ Five and seven factor solutions were also produced but do not differ in terms of conclusions and so are not reported here.

Table 2.6. Exploratory factor analysis of the airline data

n=682. Maximum likelihood using varimax rotation, shown in bold where the loading is >.3.

	<i>Factor1</i>	<i>Factor2</i>	<i>Factor3</i>	<i>Factor4</i>	<i>Factor5</i>	<i>Factor6</i>
Positivity	0.67	0.12	0.22	0.19	0.06	-0.12
<i>Expressive trust:</i>						
This company delivers what it promises	0.76	0.15	0.07	0.47	0.02	0.00
This company's product claims are believable	0.76	0.13	0.07	0.51	0.02	0.00
This company has a name you can trust	0.78	0.14	0.05	0.42	-0.01	0.01
<i>Expressive measure of ability:</i>						
This company appears to be successful at the things it tries to do	0.76	0.16	0.16	0.00	0.04	0.37
I feel very confident about this company's skills and abilities	0.84	0.17	0.10	0.01	0.03	0.15
<i>Expressive measure of benevolence</i>						
It doesn't seem this company would knowingly do anything to hurt me	0.77	0.10	-0.01	-0.02	0.10	0.09
This company seems to really look out for what is important to people like me	0.86	0.11	0.06	-0.01	0.01	-0.09
<i>Expressive measure of integrity:</i>						
This company seems to try hard to be fair in dealings with others	0.85	0.09	0.04	-0.05	-0.02	-0.03
Sound principles seem to guide this company's behaviour	0.88	0.15	0.00	-0.04	-0.01	-0.08
Risk-based exercise on ability (cross-sector)	0.09	0.74	-0.01	0.03	0.07	0.13
Risk-based exercise on ability (sector-specific)	0.08	0.79	0.02	0.02	-0.13	0.00
Risk-based exercise on benevolence (cross-sector)	0.18	0.70	0.04	0.07	0.12	0.02
Risk-based exercise on benevolence (sector-specific)	0.05	0.69	0.12	0.03	-0.06	-0.08
Risk-based exercise on integrity (cross-sector)	0.17	0.77	0.01	0.02	0.58	0.02
Risk-based exercise on integrity (sector-specific)	0.17	0.71	0.02	-0.01	0.03	-0.03
Familiarity	0.08	0.04	0.54	-0.03	0.01	0.04
Customer status	0.07	0.05	0.74	0.07	-0.01	-0.04

Table 2.7. Exploratory factor analysis of the financial services data

n=668. Maximum likelihood using varimax rotation, shown in bold where the loading is >.3.

	<i>Factor1</i>	<i>Factor2</i>	<i>Factor3</i>	<i>Factor4</i>	<i>Factor5</i>	<i>Factor6</i>
Positivity	0.39	0.03	0.34	0.50	0.01	0.07
<i>Expressive trust:</i>						
This company delivers what it promises	0.37	0.17	0.76	0.20	0.12	0.00
This company's product claims are believable	0.41	0.18	0.72	0.23	0.09	0.09
This company has a name you can trust	0.41	0.16	0.74	0.18	0.06	-0.09
<i>Expressive measure of ability:</i>						
This company appears to be successful at the things it tries to do	0.56	0.09	0.24	0.13	0.78	0.00
I feel very confident about this company's skills and abilities	0.72	0.15	0.27	0.19	0.27	0.01
<i>Expressive measure of benevolence</i>						
It doesn't seem this company would knowingly do anything to hurt me	0.73	0.18	0.24	0.11	0.09	0.07
This company seems to really look out for what is important to people like me	0.76	0.13	0.26	0.22	-0.01	0.19
<i>Expressive measure of integrity:</i>						
This company seems to try hard to be fair in dealings with others	0.82	0.10	0.18	0.20	0.13	-0.07
Sound principles seem to guide this company's behaviour	0.85	0.11	0.25	0.17	0.05	-0.16
Risk-based exercise on ability (cross-sector)	0.08	0.76	0.09	-0.01	0.00	0.10
Risk-based exercise on ability (sector-specific)	0.10	0.79	0.09	0.05	0.05	0.01
Risk-based exercise on benevolence (cross-sector)	0.04	0.75	0.13	-0.01	0.06	-0.09
Risk-based exercise on benevolence (sector-specific)	0.11	0.73	0.06	0.07	-0.01	0.02
Risk-based exercise on integrity (cross-sector)	0.07	0.80	0.08	-0.01	0.08	-0.03
Risk-based exercise on integrity (sector-specific)	0.11	0.60	0.03	0.05	-0.03	-0.01
Familiarity	0.18	0.06	0.16	0.64	0.11	-0.10
Customer status	0.16	0.00	0.09	0.74	-0.01	0.07

Table 2.8. Exploratory factor analysis of the retail data

n=692. Maximum likelihood using varimax rotation, shown in bold where the loading is >.3.

	<i>Factor1</i>	<i>Factor2</i>	<i>Factor3</i>	<i>Factor4</i>	<i>Factor5</i>	<i>Factor6</i>
Positivity	0.32	0.13	0.38	0.50	0.03	-0.12
<i>Expressive trust:</i>						
This company delivers what it promises	0.46	0.13	0.71	0.25	0.07	0.09
This company's product claims are believable	0.43	0.12	0.73	0.25	0.05	0.00
This company has a name you can trust	0.47	0.12	0.66	0.23	0.00	-0.01
<i>Expressive measure of ability:</i>						
This company appears to be successful at the things it tries to do	0.61	0.08	0.19	0.35	0.21	0.32
I feel very confident about this company's skills and abilities	0.74	0.14	0.22	0.27	0.55	0.05
<i>Expressive measure of benevolence</i>						
It doesn't seem this company would knowingly do anything to hurt me	0.74	0.12	0.23	0.07	0.02	0.09
This company seems to really look out for what is important to people like me	0.76	0.14	0.23	0.21	0.08	-0.06
<i>Expressive measure of integrity:</i>						
This company seems to try hard to be fair in dealings with others	0.84	0.11	0.21	0.06	-0.07	0.00
Sound principles seem to guide this company's behaviour	0.81	0.11	0.21	0.04	-0.02	-0.10
Risk-based exercise on ability (cross-sector)	0.02	0.70	0.02	0.04	0.02	0.07
Risk-based exercise on ability (sector-specific)	0.11	0.71	0.08	0.02	-0.01	0.17
Risk-based exercise on benevolence (cross-sector)	0.10	0.76	0.09	0.15	-0.01	-0.09
Risk-based exercise on benevolence (sector-specific)	0.09	0.72	0.08	0.04	0.02	-0.07
Risk-based exercise on integrity (cross-sector)	0.11	0.74	0.04	0.00	0.03	-0.08
Risk-based exercise on integrity (sector-specific)	0.10	0.76	0.05	-0.01	0.02	0.02
Familiarity	0.13	0.03	0.13	0.69	0.03	0.01
Customer status	0.07	0.03	0.13	0.76	0.02	0.04

DISCUSSION

Table 2.9. Overview of findings from Study 1

<i>Aim</i>	<i>Goal / Hypotheses</i>	<i>Finding</i>	<i>Discussion</i>
Practical contribution	Without adding undue cost, the new measure regularly provides a different rank-based insight into consumer trust (e.g., Company A is more trusted than Company B) that is different from the standard alternatives.	In 2 of 3 sectors, the hierarchy of trust looks different on the two measures, questioning apparent advantages of certain firms.	For a small cost, firms can reasonably expect that this additional tool will provide an extra test of which firms have a competitive advantage on trust.
Practical contribution	Without adding undue cost, the new measure regularly provides a different aspect-based insight into consumer trust (e.g., Company A is seen to have more integrity than ability) that are different from the standard alternatives.	In 4 of 9 companies, differential performance on specific aspects is questioned by the risk-based measure. In 1 of 9 companies, the risk-based measure finds a difference in performance that is questioned by the expressive measure.	For a small cost, firms can reasonably expect that this additional tool will provide an extra test on aspects of trust where they may be over or underperforming.
Theoretical contribution	H1.1. The risk-based measure of trust will correlate significantly with the expressive measure of trust and trusting behavioural intentions.	While significant, the correlations are very weak.	This suggests that either the risk-based measure is measuring something different, or the fact of completing a risk-based exercise is changing the context for participants.
Theoretical contribution	H1.2. The risk-based measure of trust will contribute more to predicting trusting behavioural intentions than the expressive measures of trust, once other variables are controlled for.	Adding the risk-based measure does not contribute more to predicting trusting behavioural intentions.	There is no evidence that the risk-based measure better predicts behavioural intentions. However, this might be explained by the fact that intentions are being recorded using an expressive methodology.

Theoretical contribution	H1.3. The relationship between overall positivity and trust will interact with (i) the measurement technique (ii) educational qualifications (iii) familiarity	The relationship between positivity and trust is strong for the expressive measure, but not for the risk-based measure. Greater familiarity strengthens the relationship between the expressive measure and positivity, but education has no effect.	<p>The strong evidence of an overlap between positivity and trust on the expressive measure is consistent with the suggestion that responses on the expressive measure of trust tend to rely on the affect heuristic.</p> <p>The absence of such a relationship on the risk-based trust measure is consistent with no attribute substitution taking place when this measure is used.</p> <p>This difference, as well as the interaction with familiarity, is consistent with the predictions made by the ‘trusting fast and slow’ model.</p>
Theoretical contribution	H1.4. Decisions on risk-based trust that relate to ability will be significantly slower than other risk-based trust decisions.	Supposedly affective judgements are no quicker than supposedly cognitive ones.	This raises some questions for the idea of ‘affective trust’ being developed through a distinct route, as suggested by McAllister (1995)

The first finding from Study 1 is that the risk-based approach to consumer trust measurement does seem initially promising. Participants can handle the task; it produces different results for different companies and between different types of risk; and it has minimal cost. One concern might be that too high a percentage of participants refused to participate in any of the gambles they were allocated: from 10 per cent for JP Morgan and Virgin Money to 21 per cent for Ryanair. We have no information on the elasticity of trust in this context (Bohnet, Hermann, & Zeckhauser, 2010) but if participants are responsive to increased potential gains, it might be possible to produce a dataset with greater variation by increasing the potential returns to trust.

But, more importantly, does the measure offer genuine practical advantages? Table 2.9 summarises the reasons to believe that it does. Firstly, we are looking for the risk-based measure to provide enough new insight to justify its small additional cost to the companies that might commission a piece of research on consumer trust. In some instances, the risk-based measure only confirms what was found using the more standard expressive techniques. In many ways this is to be expected – indeed, from a theoretical perspective, the neat result implied by H1.1 would be that companies should perform similarly on the two measures. This would be tidy and perhaps reassuring, but of little value to practitioners, who would have limited use for a measure that only confirmed what they already knew.

As can also be seen in Table 2.4, however, the risk-based measure does provide new insight for many of the companies examined here. In two of the three sectors examined, apparent rank advantages that one firm has over another appear to melt into insignificance when measured with this new tool. Looking at ability, benevolence, and integrity, the risk-based measure calls into question the idea that four of the nine companies are performing particularly well or poorly on one or two of these aspects. Only one company of the nine, Emirates, would learn nothing new from applying the risk-based measure.

However, the learning is generally negative in character: rejecting apparent differences rather than confirming them. In general, there are greater differences between the different companies on the expressive measure than on the risk-based measure. On the one hand, this might suggest that the risk-based measure is something of a blunt instrument that misses some of the underlying heterogeneity in perceptions of these companies. On the other hand, it might be that when it comes to assessing the risk of trusting these companies, the companies

are more similar than they might first appear (for example, they all operate in the same regulatory environment).

From a practitioner perspective, the new measure can at least provide a useful challenge: is our company's (dis)advantage on trust really as dramatic as the traditional measures suggest? This could prompt a significant shift in strategy: for example, a business might believe they have a competitive advantage on trust, launch a new product on that basis, only for a rival to quickly follow with an imitation. Or it might prompt a change in resource allocation: if a company initially thought it was poorly placed on questions of ability, but then discovered this was not true, it might then pay equal attention to building reputations for ability, benevolence and integrity.

The findings for JP Morgan are different from those just discussed. It would appear to be weak on ability using the traditional expressive measure, but the risk-based measure finds no such weakness. This is the second most disliked company in our sample (after Ryanair) but is intuitively also a large, successful and respected firm. Without pre-empting the hypothesis testing below, it seems plausible that JP Morgan would score poorly on ability if people used the affect heuristic, rather than reflecting in greater depth on the ability of the global investment bank.

Turning to the hypothesis testing, as is already implied in the practical conclusions, the expressive and risk-based measures of trust only correlate weakly. There are a number of potential implications from this result: firstly, it could be that one measure reflects trust, while the other measure reflects some other concept. Alternatively, we could push Dunning and colleagues' (2012) distinction to the fullest extent, and argue for two concepts of trust:

instrumental and expressive. A third possibility, which is explored in H1.3 below, and in Study 2, is that there is a single concept of trust, but that trust judgements are arrived at by dual processes.

If our two measures of trust are showing different things, we could potentially choose between them by seeing which one more closely matches ‘real world’ consumer behaviour. If the risk-based measure had been able to better predict trusting behavioural intentions, then this might have given it a right to claim to ‘truly’ reflect consumer trust. However, H1.2, is rejected: if we just look at what people *say* they will do in the future, the risk-based measure adds little to traditional expressive measures. Because of the methodological similarity between the expressive measure of trust and the expressive measure of behavioural intentions, we cannot make the opposite claim, that the traditional expressive survey is better at predicting consumer behaviour.

By largely supporting H1.3, Study 1 provides some evidence for dual processes of judgement in consumer trust decisions. Trust correlates more strongly with overall positivity when measured using a survey measure than when using a risk-based measure. This fits the expected pattern, with the affect heuristic dictating results when the task is familiar, easy and simple, but Type 2 processing taking over “when difficulty, novelty, and motivation combine to command the resources of working memory” (Evans & Stanovich, 2013, p.15), as was expected when responding to the risk-based trust measure.

Assessment of a familiar company also seems to be more reliant on the affect heuristic, to a degree that an unfamiliar company is not. There is some evidence that participants were less likely to use the affect heuristic when they dealt with an unfamiliar brand. From a dual

processing perspective, the extra novelty would be expected to increase Type 2 processing. There are also some indications that this pattern repeats for liked and disliked companies, a point that is explored further in Study 2. The fact that education, as a proxy for cognitive ability, does not seem to influence reliance on the affect heuristic should probably not be regarded as a conclusive strike against the ‘trusting fast and slow’ approach, given that participants of all levels of education seem able to handle the design of the risk-based gambles without difficulty.

Study 1 provides some evidence that does not fit easily with the affective model of trust building as proposed by McAllister (1995). Across three different sectors, it takes participants as long to decide about the risk of trusting a company whether they are considering the company’s character or its practical abilities. This would seem inconsistent with the idea, set out in H1.4, that some of these decisions are affective while others are cognitive. None of the other models of trust building discussed above make the link between the type of risk (i.e. relational or performance risk) and the process used to arrive at a trust judgement. In the classical liberal model and type signalling models both types of judgement require the same inferences and observations. In the ‘trusting fast and slow’ model, it is the contextual factors that determine the speed of processing, not the difference between questions of character and questions of ability: consistent with the finding that people can make extremely quick assessments of whether a person’s face suggests either goodwill or competence (Todorov et al., 2005). This does not prove the need to necessarily collapse McAllister’s categories of ‘cognitive and affective’ trust, but does suggest that his labels may be misleading if taken literally in a consumer context.

Study 1 also provides little evidence that a tripartite model based around ability, benevolence, and integrity works consistently across all types of trust tasks. Within the different measures, we do not see two or three distinct factors emerging that might reflect these three aspects, despite both the expressive and risk-based measures being designed to reflect this typology. There are also no stronger correlations across the measures when they deal with the same aspect. This at least calls into question the utility of this extra level of analysis.

Study 1 is correlational in design and based on a single survey. As noted throughout the above discussion, this creates risks connected to common methods bias. In addition, the correlational approach leaves a question mark on the claims about identifying the cognitive processes that lead to consumer trust judgements. Study 2, described in the next chapter, provides an opportunity to address these concerns by switching to an experimental research design.

Increasing consumer trust through different cognitive processes (Study 2)

"Truth is ever to be found in simplicity, and not in the multiplicity and confusion of things."
Isaac Newton, *Fragments from a Treatise on Revelation* quoted in Manuel (1974)

"Whenever commerce is introduced into any country probity and punctuality always accompany it.... It is far more reducible to self-interest, that general principle which regulates the actions of every man, and which leads men to act in a certain manner from views of advantage, and is as deeply implanted in an Englishman as a Dutchman. A dealer is afraid of losing his character, and is scrupulous in performing every engagement. When a person makes perhaps 20 contracts in a day, he cannot gain so much by endeavouring to impose on his neighbours, as the very appearance of a cheat would make him lose."

Adam Smith, *Lectures on Jurisprudence*

AIMS

Practical and theoretical need for evidence on the effectiveness of specific interventions in a consumer trust context

Practitioners look for interventions which can increase trust in their businesses. Although they have not been collected into a clear taxonomy, a small number of papers have tested a specific intervention on consumers and observed the effect on trust (Morhart et al., 2015; Pirson et al., 2014; 2017; Schlosser, Barnett White, & Lloyd, 2006; Waytz, Heafner, & Epley, 2014) and there is a substantial literature on the related problem of unobservable product quality (reviewed in Kirmani & Rao, 2000). There is also a large and growing behavioural science and experimental economics literature that touches on interventions which increase interpersonal trust (for example, Keck & Karelaia, 2012). Authors writing about interpersonal trust often note the implications of these studies for the business world, but few replicate their studies in this context (for example, Arce, 2006; Kim et al., 2013; Zurn & Topolonski, 2017). This could be a rich source of novel potential interventions to help

companies that wish to build trust with their consumers.²⁷ However, there are reasons why we might not assume a simple read across from interpersonal to consumer trust, because the trustee is now a powerful group, rather than just another individual (Holm & Nystedt, 2010; Kim et al., 2017.)

Study 2 offers the opportunity to test whether some of these findings can be generalised from the interpersonal to the consumer trust context, and therefore have some potential applicability for practitioners seeking to increase trust in a business. From a theoretical perspective, the generalisability, or not, of these findings from the interpersonal to the consumer trust context is, in itself, of interest.

Each of the interventions examined here is rooted in the interpersonal trust literature but aims to affect consumer trust in a company. Firstly, it is possible that a company's greater *Simplicity* could increase consumer trust. Steve Jobs at Apple was apparently obsessive about simplicity and wielded a metaphorical "simple stick" to veto ideas that lacked this crucial quality (Segall, 2013, p.8). Consultants have long advocated increased simplicity as a potential driver of increased trust (Ashkenas, 2009), and this has been given fresh impetus from a research agenda into the impact of fluent meta-cognitive experiences on behaviour (Alter & Oppenheimer, 2009). When something has a simpler or more fluent name, it is more trusted, whether it is a partner (Zurn & Topolinski, 2017), seller (Silva et al., 2017), a brand (Cho, 2019; Dohle, & Siegrist, 2014), a food additive (Song & Schwarz, 2009) or even a

²⁷ However, not all of this literature will produce novel or actionable interventions for businesses. Some studies make interventions that were originally inspired by business, such as testing the effect of charitable giving (Elfenbein et al., 2012; Fehrer & Preziorka, 2016; Milinski et al., 2002), corporate logos (Rafaeli et al., 2008) or offering guarantees (Andreoni, 2005). Many other studies focus on differences between trustors (for example, Croson & Buchan, 1999), or differences between trustees that have no obvious organisational equivalent (for example, Gervais, Shariff, & Norenzayan, 2011; Rezsescu et al., 2012). That leaves a subsection of the literature that focuses on trustees increasing trust - and where there are potential analogies in the business-to-consumer context that could form the basis of new interventions.

stock (Alter & Oppenheimer, 2006). In addition, consumers expect that it will be easier to make an insurance claim when the contract is simpler (Van Boom, Desmet, & Van Dam, 2016), while businesses with more complex annual reports tend to face higher costs of credit (Ertugrul et al., 2015). These accounts tend to emphasise the experience of something being simple as being the driver, rather than a preference *for* things which are explicitly simpler, although such a preference would be consistent with the idea of simplicity as a common goal in all forms of cognition (Chater, 1999; Chater & Vitányi, 2003).

The second intervention tested is to show the trustor *Trusting others*. Charness and colleagues (2011) found that providing information on how much someone trusted in a past trust game (as Player 1) could influence how much they themselves were trusted by others (as Player 2). They suggest that trust-*ing* behaviour is used as a proxy for trust-*worthy* character, in the absence of other cues. A company that trusts its employees might experience a similar uplift in perceived trustworthiness. Note that this is different from ideas of ‘tit for tat’ reciprocity because the trusting move is made towards one party (employees), but trust is enhanced with an entirely different group (potential customers).

In addition to these, we can consider an intervention which describes the target’s history of making charitable *Donations*. Not only has this been found, in the interpersonal trust literature, to increase trust (Elfenbein, Fisman, & McManus, 2012), it provides a helpful benchmark: do any of the other interventions used here have a greater impact than large charitable donations? While not directly translating into ‘cash terms’, it provides a sense of scale of the philanthropic activity needed to match the impact of the some of the other interventions.

Finally, a number of studies have found greater trust when trustees are in fierce *Competition* to build a good reputation (Abraho et al., 2017; Barclay, 2004; Bohnet & Huck, 2004; Bolton, Katok, & Ockenfels, 2004; Huck, Ruschala, & Tyran, 2006; Keser, 2003; Resnick et al., 2006; Slonim & Garbarino, 2008). Unlike the other concepts described here, this is a question about the market situation, not the individual company. However, we can design an intervention that benefits the specific company, by informing consumers that the market is highly competitive immediately before they make a trust judgement about a specific company.

Practical and theoretical need for evidence on different models of consumer trust-building

As set out in Chapter 1, different literatures from classical economic theory, signalling theory, marketing and management, and behavioural science point towards different models of how trust is built in a consumer context. Perhaps because these models come from such a range of theoretical roots, they are rarely pitted against one another. The main exception is the literature that tests the conclusions of the classical economic model: for example, Berg and colleagues' (1995) seminal work showing how interpersonal trust persists despite the prediction that 'rational' self-interested players of their trust game should never make an investment. As will be set out below, this is not the only situation where the different models make different predictions from one another.

From a practitioner perspective, knowing which model works best in a consumer context would be very useful. It is unlikely that an effective intervention could be designed to increase consumer trust in one company without reference to the specific circumstances of

the relevant company. The practitioner needs, instead, a menu of *prima facie* valid prescriptions, that can then be tested in the specific context of the specific company²⁸.

However, such a *prima facie* longlist could be effectively cut down if we can identify which of the different models of trust-building is most credible in a consumer context. Study 2 aims to begin the creation of such a guide for practitioners by demonstrating that some interventions do generalise from the interpersonal trust literature.

The underlying model of trust-building affects what tactics practitioners should adopt in making their interventions, particularly when looking at the ‘trusting fast and slow’ model described in Chapter 1 and evidenced, at least in part, in Chapter 2 (Study 1). If this approach is accurate, then consumers will process questions of trustworthiness in different ways, depending on how much attention they are paying to the question. The degree of attention that a consumer pays will vary dramatically across different sectors and situations. As a result, businesses in one situation may face a very different sort of challenge from another. For example, imagine a construction company builds an apartment complex. When it sells its apartments to owner-occupiers, the consumer is likely to put a huge amount of attention in the decision. If it sells them to a property magnate, this is an everyday transaction for more moderate stakes. If these two kinds of consumer think about trust in the same way, then the construction company only has a single problem to solve. But if the two groups are thinking in different ways, then the marketing strategies may need to be very different.

²⁸ A well developed menu exists in the trust repair literature: following an accusation, a company can deny responsibility, apologise, justify their actions, promise to make amends or change personnel (Ferrin et al., 2007; Gillespie & Dietz, 2009; Kim et al., 2009; Nakayachi & Watabe, 2005; Tomlinson & Mayer, 2009). However, as noted in Chapter 1, these models are designed to respond to a specific trust-breaking incident. If the target company wants to increase trust but does not face a single specific allegation against it, then these models are silent on what interventions might work.

The dual processing approach offers a basis for predictions on how these situations might differ. If Type 2 processing is relied on more when the stakes are higher, then we should see more involved trust judgements when people are buying a house than a coffee. Similarly, if Type 2 processing is more likely when consumers face an unfamiliar question, new entrants, new products and new technologies should be purchased with greater reflection than familiar, habitual purchases. And if Type 2 processing is also more likely when we face a negative piece of information, a company that has just had to confess to some scandal is more likely to be judged in depth, rather than in a fleeting fashion. So, for practitioners, if it can be shown that consumers use different processes to make trustworthiness judgements, this adds an important new contextual variable to their decision-making: picking a Type 1 processing-friendly strategy when your customer is using Type 2 processing, may doom that strategy to failure.

Predictions based on different models of trust

The different models of trust-building are characterised in detail in Chapter 1, based on grouping different authors and research approaches into categories that share some similar ideas of what causes trust to increase. Taking each model in turn, it is possible to draw out some of the different predictions that the different approaches might make regarding the different interventions described above. This is summarised in Table 3.1.

The classical liberal model would predict that few of the interventions under consideration will be successful. *Donations*, *Trusting others*, and *Simplicity* do not change the incentive of a trustee and so, if trust is largely a matter of mutual interest, they should not make any difference to a rational trustor. However, the *Competitiveness* of the market environment is a crucial reason to trust in this model. Strictly speaking, if we assume information is perfect, then telling people that the market is competitive should have no effect, as this is information they should already know (von Neumann & Morgenstern 1944). However, if we relax that assumption slightly and allow people to be persuaded by or have their attention drawn to the question of competition, the classical liberal approach might predict that the tougher the apparent competition, the greater the trust, all else being equal.

Table 3.1 Predictions regarding the impact of different interventions based on different models of trust-building

<i>Intervention</i>	<i>Classical liberal</i>	<i>Type-signalling</i>	<i>Affective/relational</i>	<i>Trusting fast and slow</i>
<i>Donation</i>	Predicts no effect	Predicts higher trust if the risk is relational (and the signal is credible). Predicts no effect if the risk is performance (or the signal is not credible.)	Predicts higher affective trust if the risk is relational.	If the trustor is using Type 2 processing, predicts higher trust if the risk is relational (and the signal is credible). If the trustor is using Type 1 processing, predicts higher trust for both relational and performance risks due to increased liking, regardless of whether it is credible.
<i>Trusting others</i>	Predicts no effect	Predicts higher trust if the risk is relational (and the signal is credible). Predicts no effect if the risk is performance (or the signal is not credible.)	Predicts higher affective trust if the risk is relational.	If the trustor is using Type 2 processing, predicts higher trust if the risk is relational (and the signal is credible). If the trustor is using Type 1 processing, predicts higher trust for both relational and performance risks due to increased liking, regardless of whether it is credible.
<i>Simplicity</i>	Predicts no effect	Predicts no effect	Predicts no effect	Predicts higher trust on both relational and performance risks if the trustor is using Type 1 processing.
<i>Competition</i>	Predicts higher trust on both relational and performance risks	Predicts no effect	Predicts no effect	Predicts higher trust on both relational and performance risks if the trustor is using Type 2 processing.

In the type-signalling model, the nature of the risk is crucial: broadly speaking, signals of ability increase trust in situations of performance risk, while signals of benevolence and integrity increase trust in situations of relational risk (Das & Teng, 2004; Colquitt et al., 2011; Mayer, Davis, & Schoorman, 1995). The *Donations* and *Trusting others* might be signals of benevolence and integrity, and therefore might increase trust in those situations of relational risk, but should be unrelated to trust over performance risk. However, it is an open question whether the evidence presented in the stimulus constitutes a credible signal of benevolence and integrity in the context that participants are facing (Boulding & Kirmani,

1993; Erdem & Swait, 1998; Nakayachi & Watabe, 2005). It might be, for example, that participants do find charitable activity to be a potential signal of benevolence and integrity, but that the amount proposed here is not sufficiently generous for the signal to be credible. However, the *Competitiveness* of the marketplace says nothing about the type that the trustee belongs to, meaning that this model predicts no effect for this intervention. Similarly, the *Simplicity* of a business is not a signal of trustworthiness in the way it has been set out here and therefore the type-signalling model predicts it will have no effect.

In this study, the trustee is a relatively new entrant to the market and isn't identified (see below for a longer discussion of this design), which means that participants cannot have a close or reciprocal relationship with the trustee. Therefore, in this study, we can simply aim to reflect the 'headlines' of McAllister's (1995) cognitive and affective trust model. As in the type-signalling model, news about the *Competitiveness* of the marketplace should have little role. Also like the type-signalling model, the *Donation* and *Trusting Others* interventions are relevant to relational trust, and so might increase affective trust, but should have no effect on cognitive trust. An organisation's *Simplicity* does not provide a basis for either affective or cognitive trust in any of the approaches where this model has been applied in a consumer context (e.g., Calefato, Lanubile, & Novielli, 2015; Johnson & Grayson, 2005; Sekhon et al., 2014).

Finally, the 'trusting fast and slow' model is based on dual process models of persuasion which suggest that different types of messaging will be more effective in changing attitudes depending on the degree of attention being paid by the audience (Chaiken, Liberman, & Eagly, 1989; Petty & Cacioppo, 1986). In this model, interventions which increase positive affect towards the target should lead to an increase in trust when trustors are relying on

heuristics – specifically, the affect heuristic (Slovic et al., 2002). This might create a ‘halo effect’ from situations where the liking might be relevant, i.e. for relational risks, to questions where it is not, i.e. for performance risk. The *Donation*, *Trusting Others*, and *Simplicity*, interventions should all make a business more likeable, and are all therefore expected to increase trust, and this effect is potentially expected to go beyond just questions of relational risk, provided participants are using Type 1 processing. But when trustors are less reliant on heuristics, these interventions should be less effective i.e. these interventions should increase trust on the standard expressive survey measure but not on the risk-based measure.

By contrast, we could consider an intervention that provides no additional reason to *like* a trustee, but does, after some reflection, provide a good reason to trust them. The *Competitiveness* intervention is designed to fill this gap. This cannot be based on the affect heuristic: knowing that all potential trustees are in competition provides no reason for me to feel warmer towards any one of them. Instead, it requires the trustor to reflect and put themselves in the role of the trustee: asking themselves, ‘would I be more trustworthy if I had to fight to hold on to every customer?’ Evans and Krueger (2011, 2014) show that when the potential losses from interpersonal trust are higher, this can make trustors ignore changes in the degree to which their partners are tempted to defect. Thinking about the trustee’s incentives requires mental effort (Evans and Krueger, 2011; Bohl & van den Bos, 2012). It is possible in principle, however, that this relationship between competition and trust is learned by some non-effortful associative process, rather than through reasoning, and hence might not be develop through Type 2 processing. However, such an association does not seem intuitively likely: in other contexts, trusting those who are intensely competitive – at work, playing sport, in education – might just as easily rebound on the trustor.

It might be argued that the *Trusting others* and *Donation* interventions are not heuristic based because they provide evidence of trustworthiness, in that they provide evidence of the trustors' character, and that allows trustees to make predictions about the future. There is a credible response that such a judgement is still rooted in the affect heuristic: categorising the trustor as a 'good guy' based on one virtuous act in the past, and then using that to decide how they will act in the future. Nevertheless, this objection can be put aside when we focus on trust for performance risk: if someone trusts my ability to complete a difficult task because I have been morally virtuous in the past, they must be using some kind of heuristic reasoning, whereby the overall positivity created by my virtuous actions is producing a 'halo effect' (Cooper, 1981) that is affecting the assessment of my competence.

These predictions become especially useful if we associate the two different trust metrics, expressive and risk based, with Type 1 and Type 2 processing respectively. As set out in Chapter 1, in the 'trusting fast and slow' model, Type 1 processes are assumed to be the default, but Type 2 processes are more involved when novelty, difficulty, or motivation are increased. As discussed around H1.3.i in the previous chapter, the risk-based measure introduces novelty, difficulty, and additional motivation for the participants. The evidence in Study 1 was consistent with the claim that the affect heuristic was used more when participants used standard expressive survey measures than when they completed risk-based tasks. If this conclusion is correct, then the two metrics should move differently in response to different interventions, with the risk-based measure responding to the more involved arguments, and the expressive measure responding to the more superficial ones, as set out in greater detail below.

Hypothesis testing around the interventions

Based on the discussion above, the following hypotheses²⁹ were generated from the perspective of the ‘trusting fast and slow’ model. Firstly, H2.1.i-iii describes the expected effect of three interventions on expressive trust – i.e. on a measure that is expected to reflect Type 1 processing in trust judgements:

H2.1.i-iii The three treatments (i-*Donation*; ii-*Trusting others*; iii-*Simplicity*) aimed at achieving increased trust through attribute substitution will significantly increase trust on the expressive measure (ET) compared to the control group.

Secondly, hypothesis H2.2.i-vi focusses on the potential ‘halo effect’ discussed above. If there is such a halo effect when participants use Type 1 processing, then there should be little difference between the impacts on expressive measures of ability and expressive measures of benevolence or integrity. If the ‘halo’ is less present when participants use Type 2 processing, then a stronger distinction should be drawn, with the risk-based measure of ability unmoved by information that is unconnected to a trustee’s performance risk. This is a similar design to Finucane and colleagues’ (2000) Experiment 2, where they provide information about a technology’s risks (benefits) and see if it reduces the technology’s perceived benefit (risk). They used this to show the affect heuristic at work: as irrelevant positive information did tend to increase the positive assessment of the technology. It is also similar to the idea of ‘strong and weak arguments’ in the literature on persuasive communications (Chaiken, Liberman, & Eagly, 1989; Petty & Cacioppo, 1986): information about a company’s benevolence is a

²⁹ Hypotheses were pre-registered with the Centre for Open Science <https://doi.org/10.17605/OSF.IO/U9GKS>

strong argument for it being trustworthy in relational risks, but a weak argument for it being trustworthy in performance risks.

H2.2.i-vi The three treatments (i-*Donation*; ii-*Trusting others*; iii-*Simplicity*) aimed at achieving increased trust through attribute substitution will significantly increase expressive measures of both ability (ETA) and benevolence / integrity (ETB). They will not (iv-vi) cause any significant increase in trust on the risk-based measure when it is limited to ability risks (RBA)³⁰.

Thirdly, hypothesis H2.3 focusses just on the *Competitiveness* intervention. This provides no reason to like the trustor, and so should have no effect on trust via the affect heuristic. However, if participants are using Type 2 processing, as expected when completing the risk-based trust exercise, they may be able to infer that this business is more likely to act in a trustworthy way because of its incentive to maintain its reputation.

H2.3 The treatment on *Competitiveness* will significantly increase trust on the risk-based measure (RBT) compared to the control group. There will be no significant increase in trust on the expressive measure (ET) compared to the control group.

Further hypothesis testing

In addition, the design of Study 2 allows for some of the findings from Study 1 to be further explored. Firstly, Study 1 found that there was a stronger correlation between positivity and trust as measured using the expressive measure than using the risk-based measure. It was

³⁰ For clarity, the final set of null hypotheses (H2.2.iv-vi) are listed as separate hypotheses in this document, while in the pre-registration they were collectively listed under a single designation, H2.iv.

argued that this was because participants had a greater tendency to use the affect heuristic when faced with an unincentivised survey question than when completing a risk-based trust exercise. This tendency is expected to be repeated when the same two tasks are performed in Study 2. However, as discussed below, the target company in Study 2 is unnamed, rather than being a familiar brand. This is expected to prompt participants to rely less on the affect heuristic, just as they appeared to in Study 1 when dealing with an unfamiliar brand.

Therefore, the following hypotheses is formulated:

H2.4 The correlation between positivity and expressive trust (ET) will be weaker than in Study 1, but still stronger than the correlation between positivity and risk-based trust (RBT).

Study 2's design also enables the testing of two additional hypotheses that look at the correlation between positivity and trust, and how this may vary based on whether the participant is more or less heavily relying on Type 1 or Type 2 processing. Firstly, if it is assumed that Type 2 processing is quite literally 'thinking slower' than Type 1, as is central to Kahneman's (2011) analysis, then it can be predicted that the people who complete the survey more quickly will tend to be more reliant on the affect heuristic. Secondly, Study 1 found some suggestions that the affect heuristic was used less when participants faced a target they disliked. However, the results were far from conclusive, and so the question is explored further here³¹. Both of these hypotheses are restricted to the expressive measure of trust, given the finding in Study 1 that positivity did not correlate strongly with the risk-based measure of trust.

³¹ In Study 1, participants were only asked to record whether they were positive, neutral or negative towards the target company. In Study 2, a longer scale is used, making it possible to look at correlations even within the population that is either broadly positive or negative towards the target company.

H2.5 There will be a stronger correlation between positivity and expressive trust (ET) when i) the survey is completed more quickly or, ii) only those with a positive or neutral attitude towards the target company are included³².

Finally, as in Study 1, this research allows us to look at another dualist model of trust: McAllister's (1995) affective and cognitive trust model. This model is widely used in the management literature (for example, Calefato, Lanubile, & Novielli, 2015; Johnson & Grayson, 2005; Sekhon et al., 2014) and discussed in detail in Chapter 1 as part of the relational/affective approach. In contrast to the 'fast and slow' dual-processing model discussed above, this approach sees content rather than context as the factor which determines which process dominates: when the content relates to competence it is arrived at through a cognitive process, when it relates to character it is arrived at through an affective process. If these labels of 'cognitive' and 'affective' processes are to be taken at face value, then they should lead us to different expectations in terms of the speed of decision-making. This is based on the well-recognised finding that affective responses can happen more quickly than ones involving judgement and reflection (Zajonc, 1980). Therefore, all else being equal, in McAllister's model, a judgement of benevolence or integrity through should happen more quickly, as it is driven by an affective response, than a judgement of ability, which is supposed to be reached through cognitive trust. This is a different prediction from the 'trusting fast and slow' model, which suggests that fast, affective reactions will happen for questions of both ability and benevolence/integrity if the participant is using Type 1

³² The phrasing of this hypothesis has been very slightly changed from the pre-registered version to make clear that these are two questions and that the attitude referred to in the second part is the attitude towards the target company.

processes, while slower, more considered judgements will happen for both questions of ability and benevolence/integrity when Type 2 processes are mobilised.

In Study 1, there was no evidence that supposedly affective trust decisions do happen faster than cognitive ones. However, Study 1 only looked at the differences in decision-times for the risk-based trust exercise. Study 2 seeks to replicate the finding in that exercise and also in the standard expressive measures of trust. In doing this, it should be noted that, once again, decision-time is not a controlled variable: participants are not instructed or incentivised to make their decisions as quickly as possible, except that, in doing so, they will complete the survey and receive their incentive more quickly. In any analysis based on decision-time, it is vital that the decisions being compared are of equal difficulty (Alos-Ferrer, 2018; Krajbich et al., 2015). Specifically in this case, any differences in difficulty must be due to the difference in the content of the decision (supposedly ‘affective’ content related to character or supposedly ‘cognitive’ content related to ability), rather than other factors that might make it more or less difficult to make the decision. This difficulty is not measured in the experimental design: instead, such conclusions that can be drawn are based on looking at a pattern across multiple settings. Just as in Study 1, it would be surprising that across three sets of questions, the same bias in terms of difficulty was created, Study 2 looks across two very different measures: expressive survey questions and risk-based decision tasks. Thus, the two studies provide multiple opportunities for the two distinct systems proposed by McAllister (1995) to reveal themselves, and if they consistently fail to do so then we are within our rights to question whether they are really there. Following on from Study 1’s null finding, Study 2 puts the hypothesis more strongly and in the negative, arguing against the affective and cognitive trust model.

H2.6 Ability judgements will not be significantly slower than judgements of benevolence / integrity, whether on the expressive or risk-based measures.

The setting for Study 2 is the UK consumer banking sector. For similar reasons as for Study 1, financial services represent a compelling example of a sector that is reliant on trust. At the time of conducting the research, the UK consumer finance sector was also undergoing a period of potential disruption, with new, digital-only banks like Monzo, Starling, Revolut and others seeking to challenge the dominant retail banks (“The digital upstarts taking on Britain’s dominant few banks”, 2018; Coulter, 2019, June 5). For a new bank to win over consumers will obviously require them to win consumer trust. One contemporary media article’s headline summed up the challenge: ‘Would you trust your salary to a start-up?’ (Whitwell, 2018).

METHODS

Study 2 mirrors Study 1 in using the online panel provided by market research company Respondi, recruited to be representative of UK adults. 2,005 participants completed the survey, but 243 were excluded before any further analysis was undertaken based on pre-registered exclusion criteria. Of the remaining 1,762, 916 were female. The criteria for exclusion were different to Study 1 because, as well as excluding overly consistent responses, the experiment required participants to pay attention to the stimulus. The pre-registered exclusion criteria were:

- completed the survey in less than 15% of the median time;
- completed the survey in over 300% of the median time;
- gave overly consistent responses (all of the same value) for all of the question sections (the manipulation checks, the risk-based trust exercises, and the expressive trust questions);
- gave overly consistent responses (all of the same value) for two of the question sections (the manipulation checks, the risk-based trust exercises, and the expressive trust questions) while also completing the survey in under 50% of the median.

As summarised in Figure 3.1, participants were randomly³³ allocated to the control group or one of four treatments (labelled *Donation*, *Trusting others*, *Simplicity*, and *Competitiveness* and summarised in Table 3.2). All participants were given initial instructions that explained that the survey concerned a real company, but the company would not be named except for a brief description. For the control group, this description was:

³³ Participants are initially allocated randomly, and then the age and gender combination of each participant is used to allocate them to the subgroup with the lowest allocation of that age and gender combination at that point in time.

This company is often called a “challenger bank” because they aim to work differently from the big banks in the UK today. They were founded in 2016 and they focus on using technology to improve the experience for customers. They have a highly rated app and no high street branches. They now have over 400 employees in their UK headquarters and around a million customers.

The treatment groups saw the same description but with a few additional sentences, shown in Table 3.2 and discussed below. Participants were then asked a series of questions about their view of the bank and how much trust they had in it, as shown in the full text of the questionnaire provided in Appendix 3.

The survey does not name the bank being described but does assert that it is a real bank. The description is based on how one of the most popular challenger banks, Monzo, describes itself on its website (Monzo 2019a). But the publicly available facts are amended in several ways to create the manipulations in the experimental design:

- Changing the year in which the bank was founded and changing the number of employees to prevent easy identification.
- Asserting in one treatment that the bank gives 1 per cent of its profits to charity to create the *Donation* treatment described below.
- Slightly exaggerating the extent of the bank’s flexible working policy (Monzo, 2019b) in order to make it clearer to the reader in the *Trusting others* treatment described below.
- Asserting that the business’s organisational structure is unusually simple in order to create the *Simplicity* treatment described below.

The amendments are very minor, especially given that no specific bank is identified during the survey. It is, however, necessary to ensure that participants believe that they refer to a real company, otherwise the incentivisation of the risk-based tasks becomes moot. As the randomly chosen participant receives the full payout (as described below), there is no potential financial disadvantage for participants from this deception.

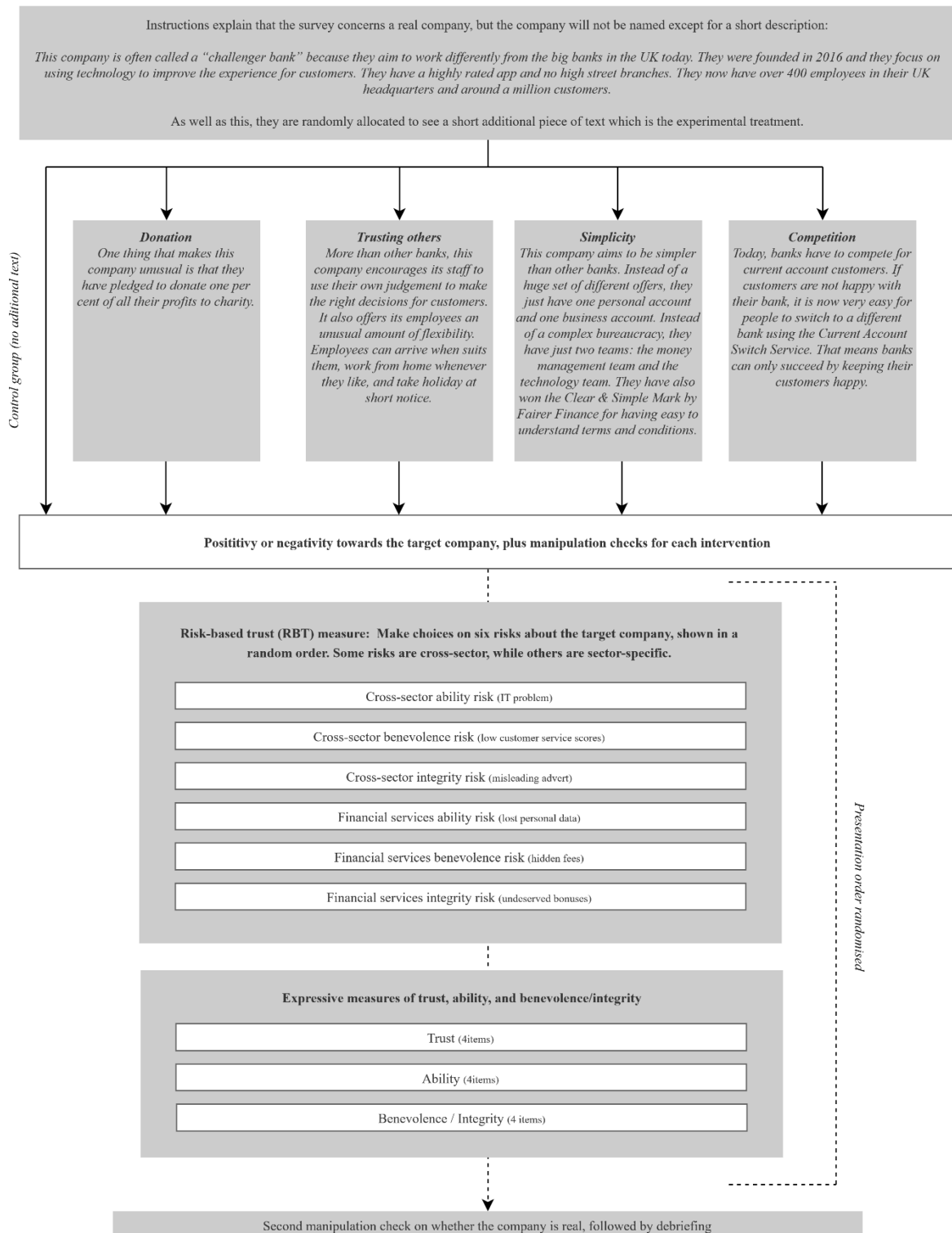
Survey structure

After participants had seen the description, they were then asked how positive or negative they felt towards the bank. The scale used for positivity was increased to seven points rather than three as in Study 1. Participants were then asked a series of manipulation check questions to confirm that the different interventions had achieved their intended goal, using the items shown in Table 3.2.

Then, as shown in Figure 3.1, participants completed two banks of questions: one set of risk-based trust exercises, and a set of expressive trust measures in the standard survey format. Participants were randomly allocated to complete one block before the other. Finally, participants were given a second manipulation check question to confirm whether they believed that the target firm was indeed real, and were then debriefed.

Figure 3.1 Study 2 survey structure

The full text is provided in Appendix 3.



Interventions

An initial Pilot Study (not reported, $N=269$) helped identify which interventions successfully led to different answers on the manipulation check questions. Table 3.2 and Figure 3.1 both show the final form that the interventions took: 1-4 additional sentences, totalling 23-65 words, added on to the general description of the bank that is given above. The *Donation* intervention uses an arbitrary scale of charitable giving that did not intuitively stretch credibility. The *Trusting others* intervention is operationalised as referring to trusting employees, both to make decisions and to manage their own time – reflecting, though in a simpler way, the kind of language used on Monzo’s website (Monzo, 2019b), and being careful not to suggest any link to trusting customers so as to avoid invoking ideas of reciprocity. The *Competition* intervention makes statements about how easy it is for customer to transfer their current account, without specifically referring to the target bank.

The *Simplicity* intervention cannot flow directly from much of the relevant the literature as the experimental design does not allow for either the name of the bank or the description provided to be a much more fluent experience than reading the control. Therefore, rather than instilling the metacognitive experience of fluency, this intervention uses an explicit description of simplicity to suggest that this bank would generate that experience when you engaged with it. It covers both internal structures and ways of communicating (reflecting Monzo, 2018; 2019a), but is careful not to give users reasons to believe that the bank is more competent – indeed, it might be argued that the simple kind of bank described is less sophisticated than a global investment bank like JP Morgan, examined in Study 1.

Table 3.2 Summary of interventions used in Study 2

<i>Intervention label and stimulus used</i>	<i>Basis in the literature</i>	<i>Manipulation check</i>
<p><i>Donation</i> “One thing that makes this company unusual is that they have pledged to donate one per cent of all their profits to charity.”</p>	Supporting a charity can make an individual more trusted (Elfenbein, Fisman, & McManus, 2012).	“This company supports charities”
<p><i>Trusting others</i> “More than other banks, this company encourages its staff to use their own judgement to make the right decisions for customers. It also offers its employees an unusual amount of flexibility. Employees can arrive when suits them, work from home whenever they like, and take holiday at short notice.”</p>	Charness and colleagues (2011) found that providing information on how much someone trusted in a past trust game (as Player 1) could influence how much they themselves were trusted by others (as Player 2).	“This company trusts its employees”
<p><i>Simplicity</i> “This company aims to be simpler than other banks. Instead of a huge set of different offers, they just have one personal account and one business account. Instead of a complex bureaucracy, they have just two teams: the money management team and the technology team. They have also won the Clear & Simple Mark by Fairer Finance for having easy to understand terms and conditions.”</p>	Numerous studies have found that participants are more willing to trust when they are presented with a simple, fluent stimulus (Alter & Oppenheimer, 2006; Cho, 2019; Dechene et al., 2010; Dohle, & Siegrist, 2014; Ertugrul et al., 2015; Pennycook, Cannon, & Rand, 2018; Reynolds-McIlroy & Morrin, 2019; Silva et al., 2017; Song & Schwarz, 2009; Van Boom, Desmet, & Van Dam, 2016; Zurn & Topolonski, 2017).	“This company keeps things simple”
<p><i>Competition</i> “Today, banks have to compete for current account customers. If customers are not happy with their bank, it is now very easy for people to switch to a different bank using the Current Account Switch Service. That means banks can only succeed by keeping their customers happy.”</p>	Several studies have found greater trust when trustees have to compete to build a good reputation (Abraham et al., 2017; Barclay, 2004; Bohnet & Huck, 2004; Bolton, Katok, & Ockenfels, 2004; Huck, Ruschala, & Tyran, 2006; Keser, 2003; Resnick et al., 2006; Slonim & Garbarino, 2008).	“This company must work hard to win and keep its customers”

Measures

As far as possible, the measures used in Study 2 are repeated from Study 1. The risk-based trust measure (RBT) for financial services is repeated from Study 1, with two amendments. Rather than being increased by 50 per cent, anything that is put at risk is now quadrupled. This is to compensate for the fact that the target is not named and so participants may be more wary about trusting. Secondly, to avoid any possible confusion with the word “account” used in Study 1, the less financially-relevant term of “pot” is used instead.

The expressive measure of trust (ET) is repeated from Study 1, except for one item which referred to the company’s name and is therefore inappropriate for a study where the company is not named. This is replaced with the intuitively straightforward item “This company is trustworthy”. Given that the split of ability, benevolence, and integrity did not seem especially fruitful in Study 1, Study 2 asks about two sets of antecedents: ability-based ones, and those related to either benevolence or integrity. The items are repeated from Study 1, but two new items are added to the expressive measure of ability, adapted from Schlosser and colleagues (2006), so as to have the same number of ability and non-ability related items, which enables some of the decision-time comparisons made below. The time taken by each respondent on each set of questions was recorded, as well as the total time taken to complete the survey.

Incentives

All participants were awarded points that can be exchanged for cash as payment for completing the survey in exactly the same way as in Study 1. As in Study 1, one participant was randomly chosen and they are given the full amount that it is possible to win, without waiting to see what happens to Monzo over the coming year. Because of the increased gains to trust, this participant received £384 GBP in Study 2. As discussed in Study 1, this small deception had some practical benefits in the short term, but is not necessary to the design of the risk-based measure, and the winning participant was warned that their immediate payout might not be repeated in future.

RESULTS

The following section first examines the success of the manipulations in the experimental treatments and identifies some order effects that appear in the data. After this, the main focus of Study 2 is to look at the impact of the interventions on both expressive and risk-based measures of trust. Finally, it looks again at the correlation between positivity and different measures of trust, as well as the time taken to complete trust questions on more ‘affective’ or ‘cognitive’ questions. A summary of the results for different experimental treatments is shown in Table 3.3.

Manipulation Checks

Each group answered all of the manipulation checks, and the relevant comparisons between treatment group and control group are shown below. Each of the treatment groups have a higher mean score for positivity than the control group ($M=4.429$, $SD=1.029$). This is expected for the *Donation* treatment ($M=4.746$, $SD=1.184$), $t(686.91)=-3.778$, $p<.001$, two-sided, the *Trusting others* treatment ($M=4.925$, $SD=1.405$), $t(654.39)=-5.348$, $p<.001$, two-sided, and the *Simplicity* treatment, ($M=4.766$, $SD=1.293$), $t(678.04)=-3.835$, $p<.001$, two-sided. What is more of a surprise is that *Competition* treatment is receives significantly higher positivity scores than the control, ($M=4.64$, $SD=1.09$), $t(687.62)=-2.702$, $p=.007$, two-sided. While the effect is small, $r=.102$, this is still surprising because the *Competition* stimulus did not provide any additional information about the specific target company. Either this could be caused by the mere expose to a slightly longer stimulus about the target (Zajonc, 1980) or, perhaps more likely, the additional information about the sector in the *Competition* stimulus could make participants more positive about banks as a whole, and this could reflect back on the target.

As shown in Table 3.2, each intervention was paired with a manipulation check statement to establish whether the intervention had improved perceptions in the way intended. Participants in the *Donation* condition were more likely to agree with the statement “This company supports charities” ($M=4.068$, $SD=1.013$) than the control group ($M=2.962$, $SD=0.896$), $t(689.29)=-15.275$, $p<.001$, one-sided. Participants in the *Trusting others* condition were more likely to agree with the statement “This company trusts its employees”, ($M=4.042$, $SD=0.886$), than the control group ($M=3.557$, $SD=0.825$), $t(698.41)=-7.505$, $p<.001$, one-sided. Participants in the *Simplicity* condition were more likely to agree with the statement “This company keeps things simple” ($M=3.986$, $SD=0.905$) than the control group ($M=3.618$, $SD=0.839$), $t(699.41)=-5.5902$, $p<.001$, one-sided. Participants in the *Competition* condition were more likely to agree with the statement “This company must work hard to win and keep its customers” ($M=4.055$, $SD=0.842$) than the control group ($M=3.977$, $SD=0.816$), but this did not meet the test of statistical significance, $t(688.81)=-1.235$, $p=.109$, one-sided.

At the end of the survey, participants were asked how confident they were that the bank referred to in the questions was real using a 1 to 5 scale. 330 Around 19 per cent ($n=330$) gave answers of 1 (i.e. not at all confident) or 2. The figures reported throughout include these participants. As planned in the pre-registration, the same analysis was also conducted on a sample excluding this group, but this did not produce different results except where noted below.

Order effects

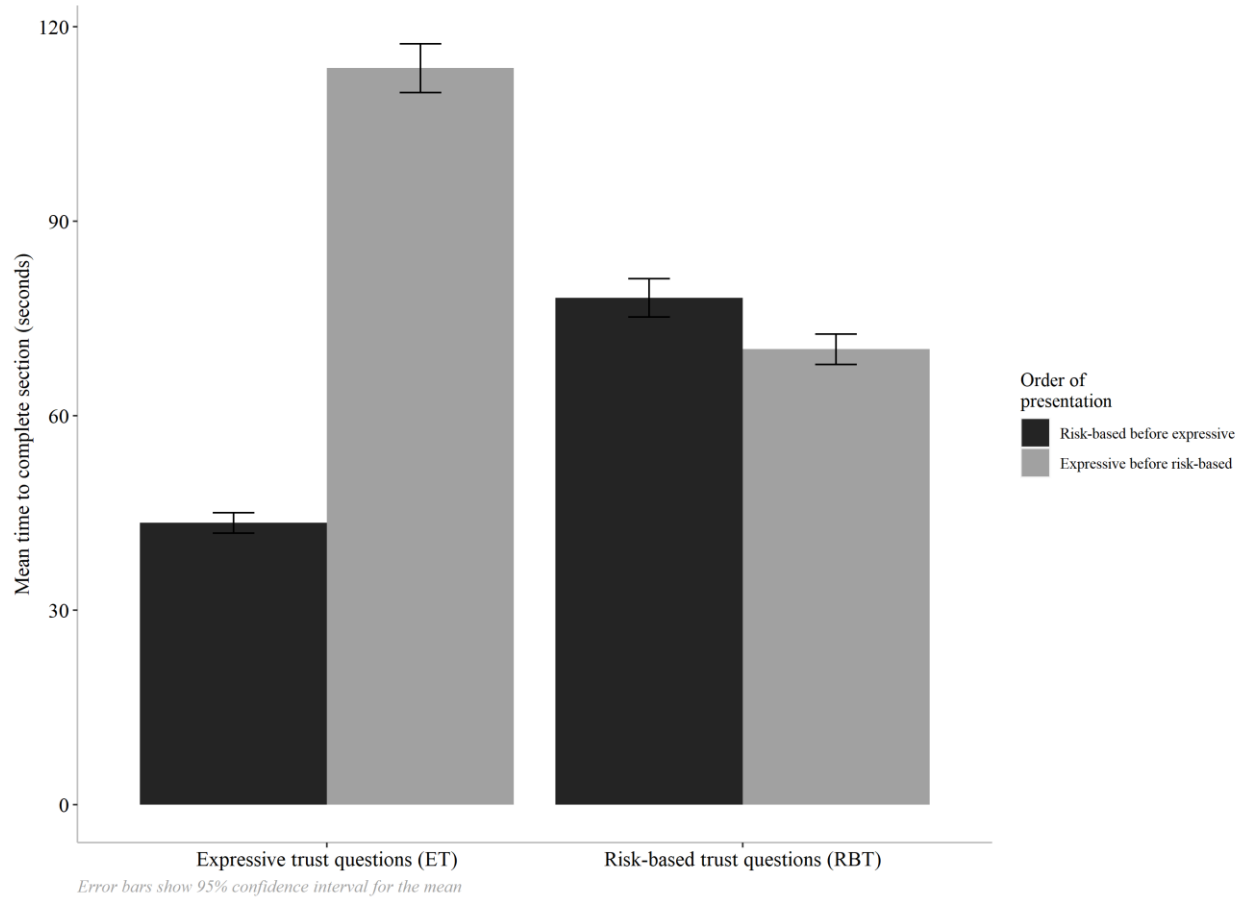
Because the design was counter-balanced, roughly half the participants completed the measure of expressive trust after the measure of risk-based trust. The two groups were equally positive towards the company before their question order was allocated, with no significant difference in the positivity of the group who saw the risk-based exercises first ($M=4.714$, $SD=1.238$) and those who saw the expressive questions first ($M=4.697$, $SD=1.203$), $t(1749.1)=0.293$, $p=.770$, two-sided. However, the order of the tasks did affect how long participants spent on each one, as shown in Figure 3.2. When participants completed the risk-based trust exercise first they spent significantly longer on the six exercises ($M=78.217$ seconds, $SD=44.087$ seconds) than the participants who completed the risk-based trust exercises after already completing the expressive trust questions ($M=70.265$ seconds, $SD=35.685$ seconds), $t(1650.8)=4.149$, $p<.001$, two-sided. This effect is even more pronounced for the expressive trust exercises: when they were presented first, participants spent, on average, more than twice the total time on these three exercises ($M=113.663$ seconds, $SD=57.565$ seconds) than when they were presented after the risk-based trust exercises ($M=43.487$ seconds, $SD=23.603$ seconds), $t(1209.3)=-33.77$, $p<.001$, two-sided.

These order effects were not envisaged before the data was analysed. It might be imagined that fatigue from the first exercise could cause participants to speed up on the second exercise they face. Alternatively, the introduction of an incentivised task could reduce the intrinsic motivation for accuracy on subsequent, non-incentivised tasks (Gneezy & Rustichini, 1998; Kreps, 1997). Finally, there might be some more idiosyncratic reason for these order effects, either specific to trust or to the experiment design. For example, it might be that in coming to

a trust judgement in the risk-based task, participants have a salient and considered view that they can quickly and easily consult to answer subsequent expressive questions.

The balanced design provides a route past this potential confound in the order of questions: when looking at one of the two trust measures, we can look only at the ‘unpolluted’ data of those who answered that question first. Obviously this reduces the overall sample size dramatically, but as the sample is chosen to match the commercial market research norm of $N=2,000$, there is still much analysis that can be conducted with this reduced subset of the data: following the exclusions discussed above, $n=859$ saw the risk-based exercises (RBT) first, and $n=903$ saw the expressive trust exercises (ET) first. Unless otherwise stated in the analysis below, only these subsamples are used to analyse risk-based or expressive trust respectively. Where this produces a notably different result from the full dataset, this is pointed out.

Figure 3.2. Order effects on the time taken to complete different trust measures



Intervention impacts (H2.1-H2.3)

Table 3.3 Summary of results by intervention					
Means (and standard deviations) except where stated.					
	<i>Interventions</i>				
	<i>Control</i>	<i>Donation</i>	<i>Trust others</i>	<i>Simplicity</i>	<i>Competition</i>
Sub-sample asked the expressive trust questions before the risk-based trust questions					
<i>n*</i>	185	188	169	184	177
Positivity (Scale 1-7)	4.459 (0.967)	4.729 (1.191)	4.899 (1.404)	4.826 (1.286)	4.582 (1.095)
Expressive measure of trust (5 point scale, averaged across three items)	3.458 (0.732)	3.426 (0.733)	3.444 (0.820)	3.609 (0.805)	3.399 (0.726)
<i>Average transfer in the risk-based trust exercises** (Across six gambles, up to a maximum of £64 per gamble***)</i>	<i>£24.29 (£18.11)</i>	<i>£25.59 (£17.31)</i>	<i>£25.94 (£16.76)</i>	<i>£24.38 (£16.79)</i>	<i>£25.69 (£19.14)</i>
Sub-sample asked the risk-based trust questions before the expressive trust questions					
<i>n*</i>	158	166	189	175	171
Positivity (Scale 1-7)	4.392 (1.099)	4.765 (1.180)	4.947 (1.409)	4.703 (1.301)	4.713 (1.087)
<i>Expressive measure of trust** (5 point scale, averaged across three items)</i>	<i>3.601 (0.805)</i>	<i>3.606 (0.851)</i>	<i>3.557 (0.852)</i>	<i>3.630 (0.794)</i>	<i>3.659 (0.793)</i>
Average transfer in the risk-based trust exercises (Across six gambles, up to a maximum of £64 per gamble***)	£24.68 (£17.93)	£24.76 (£16.51)	£24.41 (£17.20)	£25.30 (£16.62)	£30.64 (£19.29)
*Following pre-registered exclusions applied as described above					
** Shown for completeness only					
***Experimental currency of 'mingle points' is converted to GBP at a 1,000 points to £8 ratio.					

Table 3.3 summarises the results for the different treatments. For completeness, it shows the mean values on the different trust measures both for those who saw the risk-based trust questions first and those who saw the expressive measures first. The table gives the responses either on the expressive scale or in terms of the amount of money put at risk overall.

As described in the planned pre-registration, the data is normalised by subtracting the control group mean and dividing by the control group standard deviation before taking an average of the amount put at risk across the six tasks in the case of risk-based trust (RBT, $\alpha=.89$), or the average scores given on the three expressive trust questions (ET, $\alpha=.87$). This is repeated from Study 2 and, as discussed above, ensures that ‘bets’ on risk events with different probabilities can be compared. It means that the control treatment always has a mean of zero, but a standard deviation is less than one because the variance is usually reduced across the several items. The distribution of the trust for each of the different treatments is similar, as shown in Appendix Figure A2. The normalisation means that the control group means are always zero, and the control group standard deviations are expected to be around one, although this can vary as the normalisation is conducted at the item level, before being averaged.

In addition, metrics are created along the same design to look at the different aspects of trust: both for the four expressive questions on ability (ETA, $\alpha=.89$), and the four expressive questions on benevolence and integrity (ETB, $\alpha=.89$). In addition, a measure of risk-based trust using only the two risks related to ability is also created (RBA, $r(857)=.570, p<.001$), and, for completeness but not referenced in any of the hypotheses, one that covers the remaining four risks related to benevolence and integrity (RBB, $\alpha=.85$).

The first hypothesis to examine is whether the interventions expected to increase trust on the expressive measure do so. This hypothesis was pre-registered as:

H2.1.i-iii The three treatments (i-*Donation*; ii-*Trusting others*; iii-*Simplicity*) aimed at achieving increased trust through attribute substitution will significantly increase trust on the expressive measure (ET) compared to the control group.

As shown in Table 3.4 and Figure 3.3, the three treatments designed to increase trust through attribute substitution had different effects on the expressive measure of trust. Contrary to H2.1.i and H2.1.ii, the *Donation* and *Trusting others* interventions had no effect on the expressive measure of trust. However, and as predicted in H2.1, for the *Simplicity* group, there is a small but significant difference, $t(363.25) = -1.885, p = .030$, one-sided³⁴. From this, it can be concluded that one of these approaches, emphasising simplicity, can drive increased trust as measured using an expressive survey.

³⁴ This conclusion is slightly different if we perform the analysis on all the participants i.e. in this case, including participants who completed the measures of expressive trust after the risk-based trust exercise. The difference in expressive trust now slightly exceeds the standard threshold for statistical significance ($M = 0.111$, $SD = 0.930$), $t(699.97) = -1.615, p = .053$, one-sided.

Table 3.4 Testing whether the interventions cause a significant difference in trust
 Bold used where $p < .05$.

	<i>Interventions</i>				
	<i>Control</i>	<i>Donation</i>	<i>Trust others</i>	<i>Simplicity</i>	<i>Competition</i>
Expressive trust (ET)					
Normalised mean (Standard deviation)	0 (0.88)	-0.04 (0.88)	-0.02 (0.99)	0.18 (0.97)	-0.07 (0.88)
One sided t-test comparing control and treatment means		$t(371) = 0.46$, $p = .68$	$t(338) = 0.19$, $p = .57$	$t(363) = -1.89$, $p = .03$	$t(360) = 0.76$, $p = .78$
Risk-based trust (RBT)					
Normalised mean (Standard deviation)	0 (0.83)	0 (0.76)	-0.01 (0.79)	0.03 (0.77)	0.28 (0.89)
One sided t-test comparing control and treatment means		$t(317) = -0.04$, $p = .48$	$t(329) = 0.14$, $p = .55$	$t(321) = -0.32$, $p = .37$	$t(327) = -2.91$, $p = .002$
NB - Only showing data for those who saw the relevant metric first					

A second set of hypotheses proposed that interventions designed to create a warmer impression of the target would increase trust on both relevant (i.e. benevolence-related) and irrelevant (i.e. ability-related) measures of expressive trust. By contrast, there would be no impact on irrelevant measures of trust when using a risk-based measure. Note that because of the order effects discussed above, this means examining the two different subgroups that have an ‘unpolluted’ read on each measure. In the pre-registration, this hypothesis was set out as:

H2.2.i-vi The three treatments (i-*Donation*; ii-*Trusting others*; iii-*Simplicity*) aimed at achieving increased trust through attribute substitution will significantly increase expressive measures of both ability (ETA) and benevolence / integrity (ETB). They will not (iv-vi) cause any significant increase in trust on the risk-based measure when it is limited to ability risks (RBA).

Figure 3.3 Effects of the interventions on the expressive measure of trust

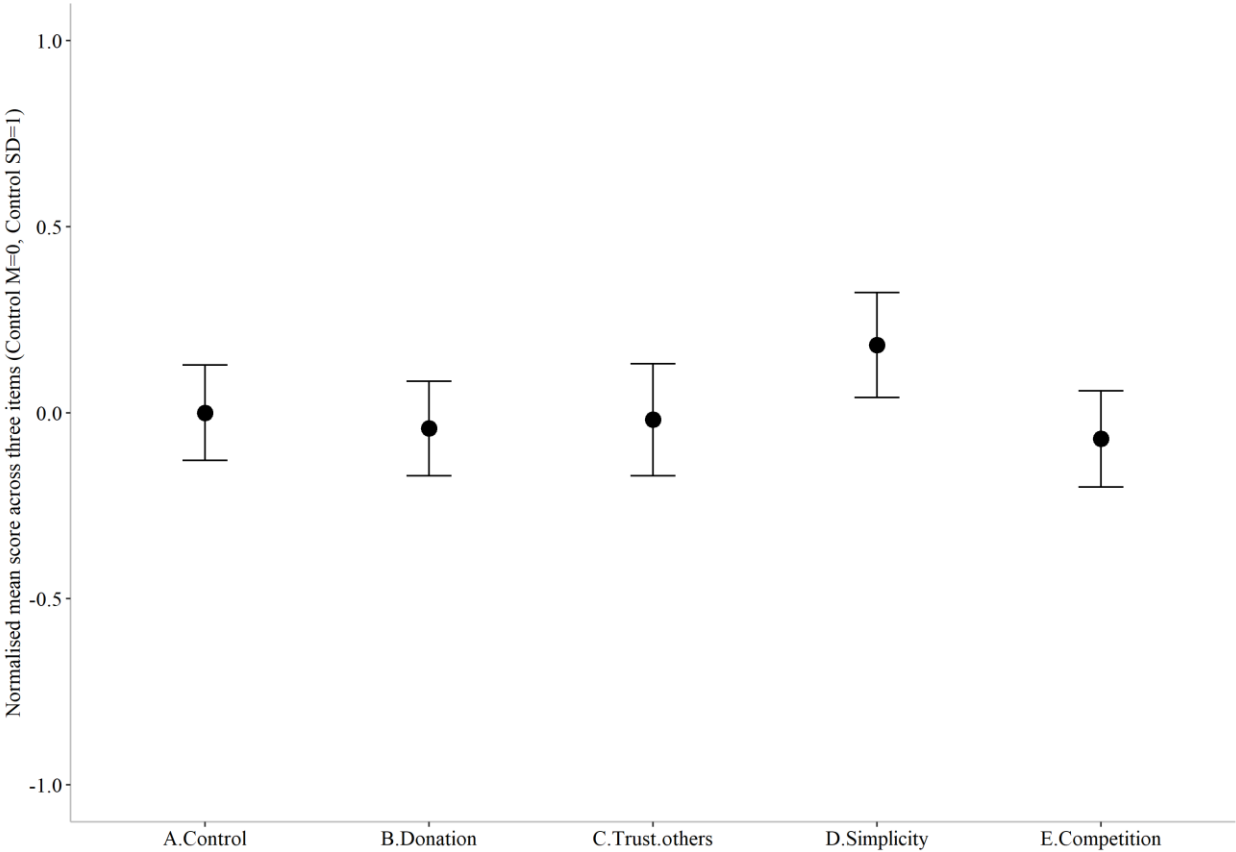


Table 3.5 Testing whether the interventions cause a significant difference in different aspects of trust
 Bold used where $p < .05$.

	<i>Interventions</i>				
	<i>Control</i>	<i>Donation</i>	<i>Trust others</i>	<i>Simplicity</i>	<i>Competition</i>
Expressive trust measures related to ability (ETA)					
Normalised mean (Standard deviation)	0 (0.85)	-0.03 (0.88)	0.13 (0.96)	0.10 (0.94)	0.05 (0.92)
One sided t-test comparing control and treatment means		$t(371) = 0.32$, $p = .62$	$t(338) =$ -1.36 , $p = .09$	$t(363) =$ -1.05 , $p = .15$	$t(355) =$ -0.52 , $p = .30$
Expressive trust measures related to benevolence/integrity/ (ETB)					
Normalised mean (Standard deviation)	0 (0.87)	0.11 (0.98)	0.15 (0.93)	0.17 (0.96)	0.07 (0.86)
One sided t-test comparing control and treatment means		$t(366) =$ -1.19 , $p = .12$	$t(343) =$ -1.59 , $p = .06$	$t(362) =$ -1.73, $p = .04$	$t(360) =$ -0.76 , $p = .22$
Risk-based trust measures related to ability (RTA)					
Normalised mean (Standard deviation)	0 (0.89)	0.01 (0.85)	-0.06 (0.87)	0.01 (0.84)	0.25 (0.93)
One sided t-test comparing control and treatment means		$t(319) =$ -0.10 , $p = .46$	$t(331) = 0.60$, $p = .72$	$t(323) =$ -0.15 , $p = .44$	$t(327) =$ -2.53, $p = .01$
Risk-based trust measures related to benevolence/integrity (RTB)					
Normalised mean (Standard deviation)	0 (0.86)	0 (0.82)	0.01 (0.84)	0.04 (0.81)	0.29 (0.94)
One sided t-test comparing control and treatment means		$t(319) =$ 0.0 , $p = .50$	$t(331) =$ -0.11 , $p = .46$	$t(323) =$ -0.39 , $p = .35$	$t(327) =$ -2.89, $p = 0.002$
NB - Only showing data for those who saw the relevant metric first					

Table 3.5 shows the different results for the different aspects of trust, measured in the two different ways. Once again, the *Donation* and *Trusting Others*³⁵ interventions do not cause a significant increase in either the expressive measure of ability or of benevolence, although

³⁵ As noted above, participants were included even if they said at the end of the exercise that they doubted whether the company was real. Excluding those doubting participants produces a slightly different conclusion here: the *Trusting Others* interventions causes a significant increase in ETA ($M = 2.23$, $SD = 0.906$) compared to the mean ($M = 0$, $SD = 0.858$), $t(270.55) = -2.095$, $p = .02$. It also causes an increase in ETB ($M = 2.43$, $SD = 0.868$) compared to the mean ($M = 0$, $SD = 0.867$), $t(273) = -2.328$, $p = .01$.

some of the differences approach the standard threshold for statistical significance. The *Simplicity* intervention does cause an increase in both the expressive measure of ability and of benevolence but it only passes the test for significance on the benevolence measure, $t(362.43) = -1.734, p = .042$, one-sided³⁶. This suggests a rejection of the H2.2.i-iii: where the interventions have a significant impact, it is on the measure that is more relevant to their content i.e. on the question of benevolence/integrity. From this, we might reject the idea that these interventions affect any expressive measure in the same way, whether or not it is relevant. However, as can be seen in Figure 3.4, the irrelevant expressive measure of ability (ETA) does increase, albeit not to a degree that meets the threshold for statistical significance, $t(363) = -1.05, p = .15$ one-sided. H2.2.iv-vi are fully supported: none of these interventions affect the risk-based measure of trust in ability, as shown in Figure 3.6.

Finally in this section, we examine the treatment on competitiveness that was expected to increase trust on reflection, but not through the attribute substitution as discussed above. This led to the prediction that the treatment would move one metric, but not the other:

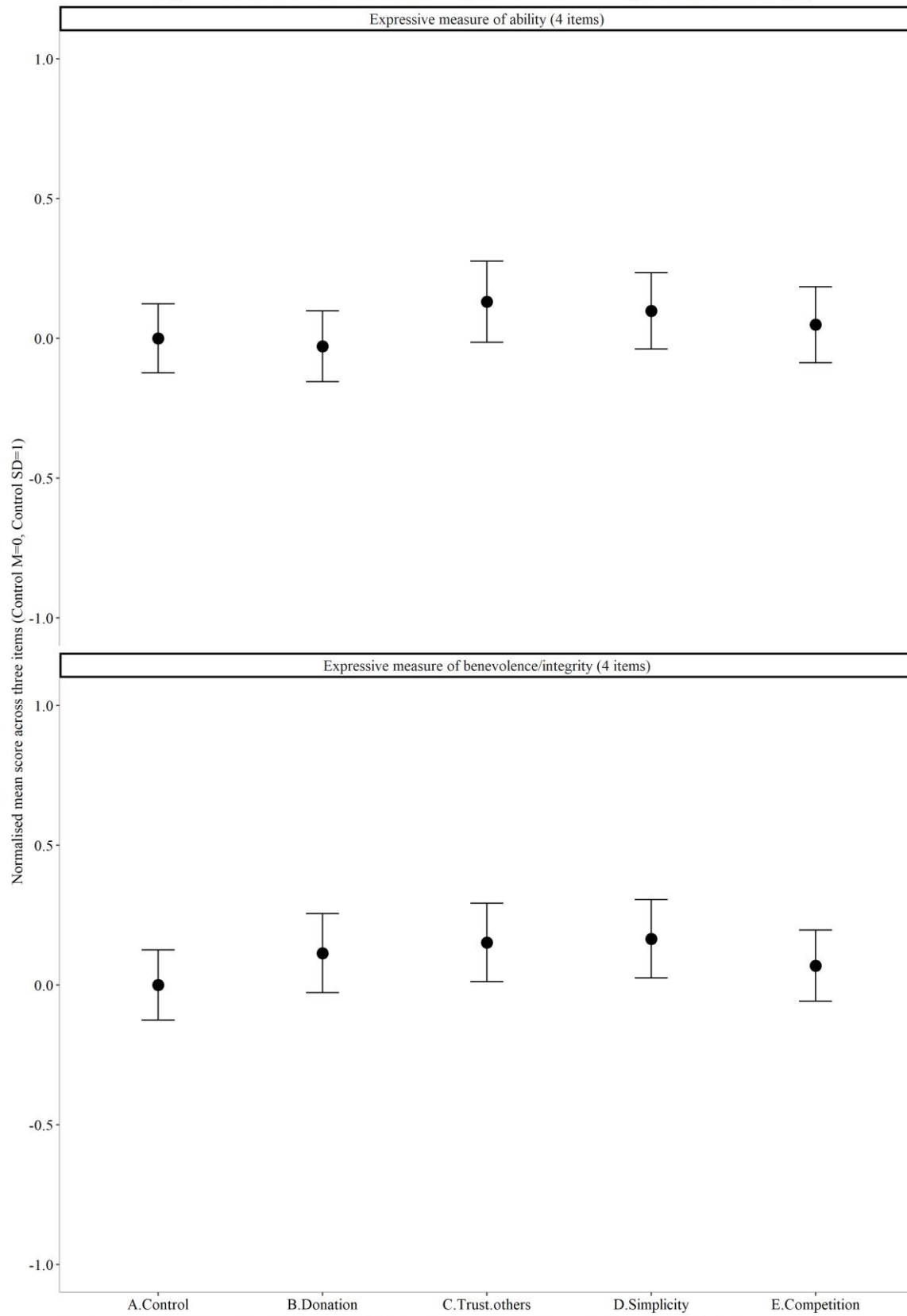
H2.3 The treatment on *Competitiveness* will significantly increase trust on the risk-based measure (RBT) compared to the control group. There will be no significant increase in trust on the expressive measure (ET) compared to the control group.

This prediction was fulfilled exactly as expected, as is shown in Table 3.4. There was a small but significant increase in trust on the risk-based measure compared to the control group, $t(326.99) = -2.906, p = .002$, one-sided. There was no similar increase in trust on the expressive

³⁶ This conclusion is slightly different if we perform the analysis on all the participants i.e. in this case, including participants who completed the measures of expressive trust after the risk-based trust exercise. The difference in the expressive measure of benevolence (ETB) does not meet the test of statistical significance ($M = 0.079, SD = 0.894$), $t(699.53) = -1.1866, p = .12$, one-sided.

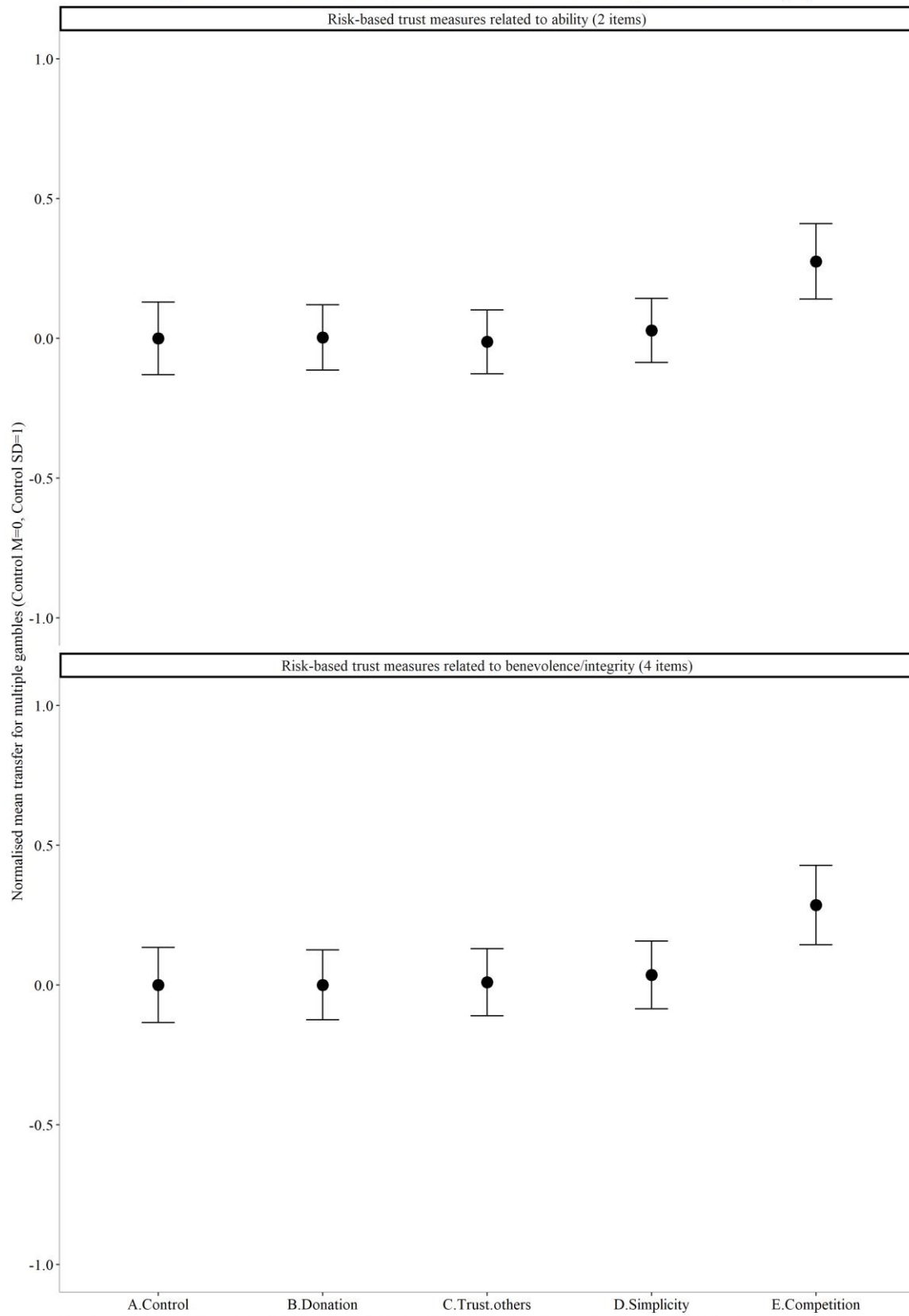
measure. It is worth noting that this is despite the fact that, as discussed in the manipulation check above, positivity towards the target company increased following the *Competitiveness* intervention. These two results can be seen in Figures 3.3 and 3.5.

Figure 3.4 Effects of the interventions on the expressive measure of ability and benevolence/integrity



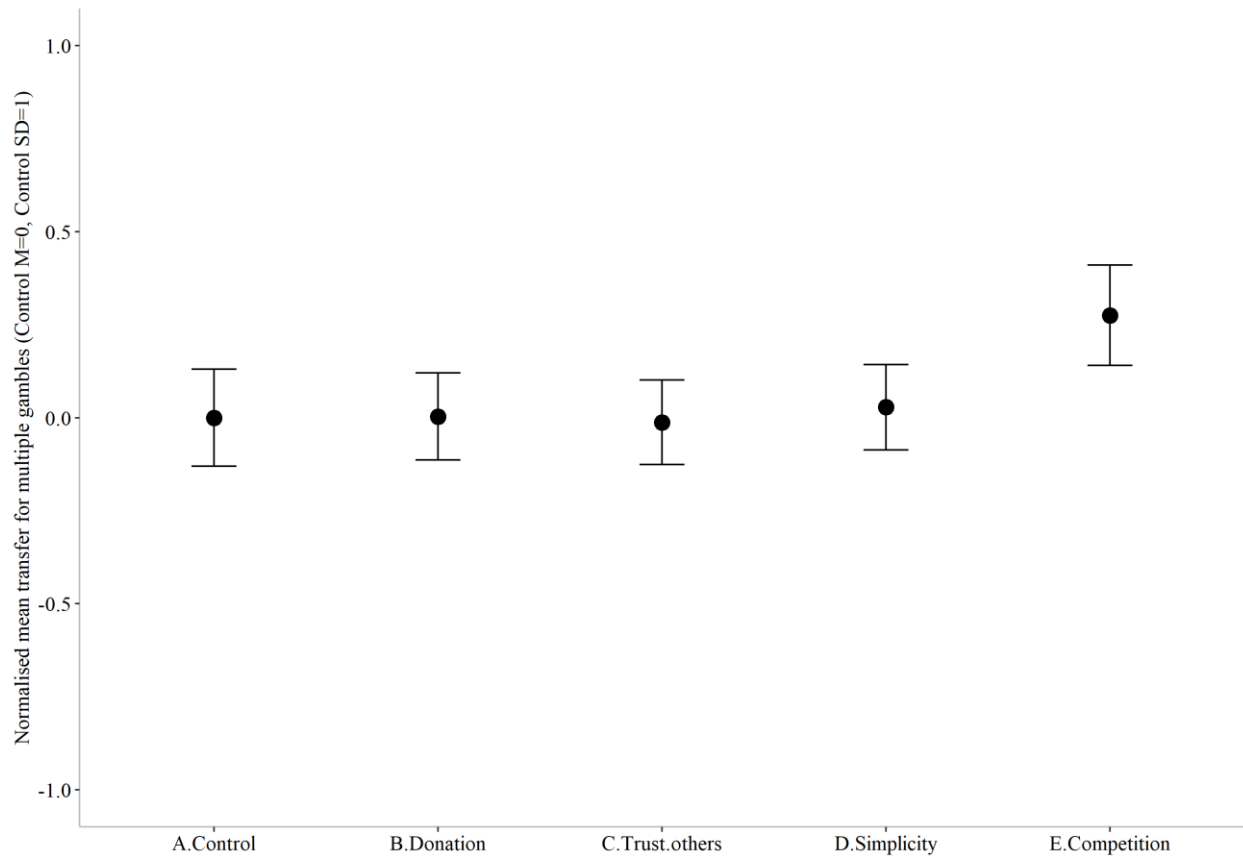
Error bars show 95% confidence interval for the mean. Only showing data for participants who completed the relevant metric first. Trust measures are normalised so $M=0$, $SD=1$ for the Control group on each item, then averaged.

Figure 3.5 Effects of the interventions on the risk-based measure of ability and benevolence/integrity



Error bars show 95% confidence interval for the mean. Only showing data for participants who completed the relevant metric first. Trust measures are normalised so $M=0$, $SD=1$ for the Control group on each item, then averaged.

Figure 3.6 Effects of the interventions on the risk-based measure of trust



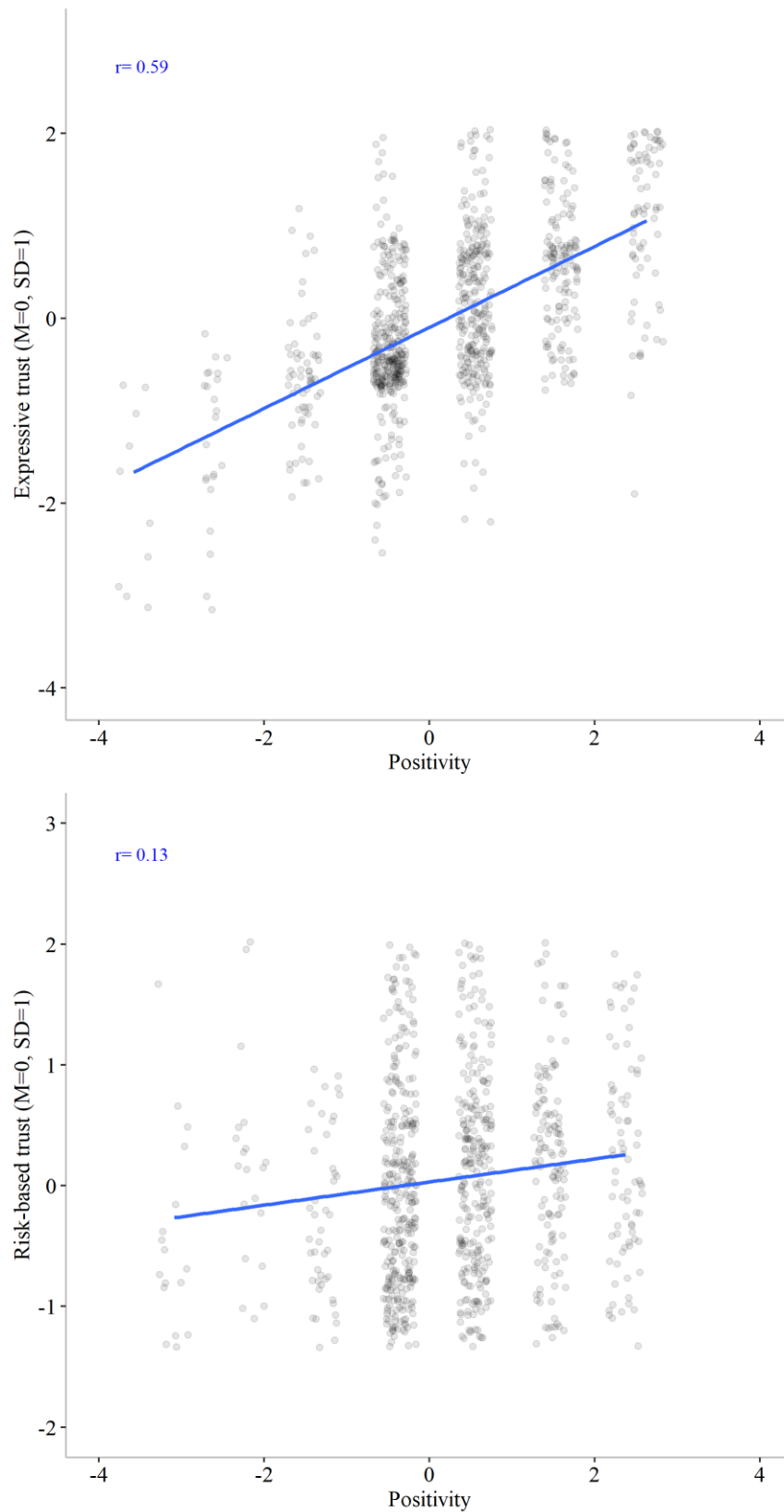
Error bars show 95% confidence interval for the mean. Only showing data for participants who completed the relevant metric first.
Trust measures are normalised so M=0, SD=1 for the Control group on each item, then averaged.

Other hypotheses (H2.4-H2.6)

H2.4 The correlation between positivity and expressive trust (ET) will be weaker than in Study 1, but still stronger than the correlation between positivity and risk-based trust (RBT).

Study 2 repeats the finding from Study 1 that there is a much stronger correlation between expressive trust and positivity, $r(901)=.591$, $p<.001$, than between risk-based trust and positivity, $r(857)=.132$, $p<.001$, as shown in Figures 3.7 and 3.8. This difference is significant, $z=-11.442$, $p<.001$. H2.4 added the additional proposal that this effect would be weaker because an unnamed bank might prompt greater Type 2 processing, as in Study 1 there is a weaker correlation between expressive trust and positivity when the target is unfamiliar. This did not occur in the Study 2 data: while the correlation is a little weaker for Study 2 than for Study 1 ($r=.557$), the difference is not significant, $z=-0.995$, $p=.160$.

Figure 3.7. Correlations between positivity and two different measures of trust



Trust measures are normalised so $M=0$, $SD=1$ for the Control group on each item, then averaged. Points are jittered to avoid overplotting.

H2.5 There will be a stronger correlation between positivity and expressive trust (ET) when i) the survey is completed more quickly or ii) only those with a positive or neutral attitude towards the target company are included.

The model advocated in this thesis is entitled ‘trusting fast and slow’ and so it is natural to look at whether or not participants behave differently when they work quickly through the survey, and might therefore be more reliant on faster cognitive processes. As well as a main effect of positivity on expressive trust, $F(889, 1)=485.932, p<.001$, there is an interaction between positivity and completion time, $F(889, 1)= -5.875, p=.016$. Exploring this further, the participants are divided into four quartiles based on their total completion time. The slowest two quartiles have similar correlation coefficients, $r(225)=.508, r(225)=.505$, respectively, both $p<.001$. The fastest and second fast quartiles have higher correlation coefficients: $r(224)=.690, r(221)=.650$, respectively, both $p<.001$. Table 3.6 shows that the differences between these correlations are often significant. This is consistent with the idea that participants who work quickly are more likely to use attribute substitution than those who work slowly. However, completion time was not a controlled variable in the study so exogenous factors might confound this correlational analysis: for example, if participants who felt particularly confident using their computer were more likely to give an extremely positive answer, then this might confound the analysis.

Table 3.6 Comparing the correlations between expressive trust (ET) and positivity for faster and slower participants

z-test results shown, in bold where the one tailed *p* value is <.05.

	q1 (fastest)	q2	q3	q4 (slowest)
q1 (fastest)		<i>z</i> = 0.75, <i>p</i> = 0.23	<i>z</i>= 3.09, <i>p</i>= 0.001	<i>z</i>= 3.04, <i>p</i>= 0.001
q2	<i>z</i> = 0.75, <i>p</i> = 0.23		<i>z</i>= 2.33, <i>p</i>= 0.01⁹	<i>z</i>= 2.28, <i>p</i>= 0.01
q3	<i>z</i>= 3.09, <i>p</i>= 0.001	<i>z</i>= 2.33, <i>p</i>= 0.01³⁷		<i>z</i> = -0.05, <i>p</i> = 0.48
q4 (slowest)	<i>z</i>= 3.04, <i>p</i>= 0.001	<i>z</i>= 2.28, <i>p</i>= 0.01	<i>z</i> = -0.05, <i>p</i> = 0.48	
NB - Only showing data for those who saw the expressive trust metric first				

In Study 1, the scale on the positivity metric only included positive, neutral, and negative. In Study 2, this scale is expanded to 7 points. This means that the data can be split to isolate those who felt negative about the target company ($n=96$), and those who felt neutral or positive ($n=807$). For these two groups, the correlations between positivity and the expressive measure of trust are near-identical: $r(805)=.510$, $p<.001$ for the neutral or positive group and $r(94)=.518$, $p<.001$, for the negative group $r(805)=.510$, $p<.001$, $z=-0.105$, $p<.459$. Unlike in Study 1, these results provide no evidence that participants are engaging in less attribute substitution when they are dealing with a target that they dislike³⁸.

H2.6 Ability judgements will not be significantly slower than judgements of benevolence / integrity, whether on the expressive or risk-based measures

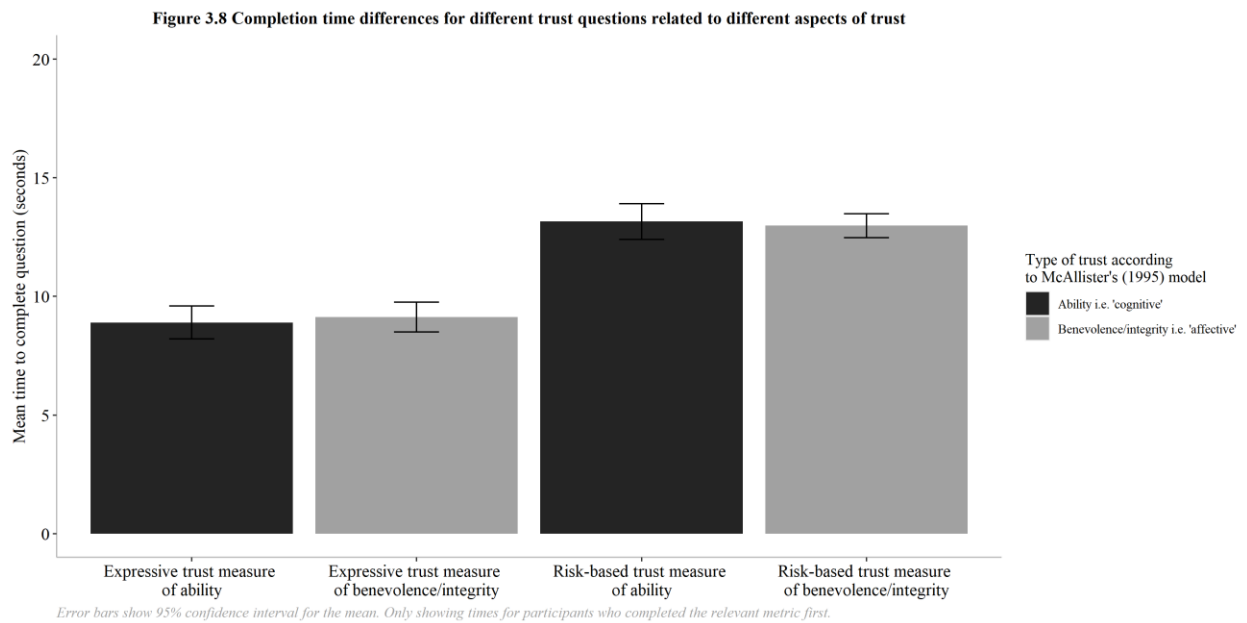
³⁷ This test does not quite meet the test of statistical significance when the whole dataset is analysed, $z=1.53$, $p=.006$.

³⁸ This analysis looks different when we look at the whole dataset. The correlation for those who are positive or neutral towards the target is similar to that given above: $r(1583)=.464$, $p<.001$. However, the correlation for those who disliked the target is quite a bit weaker: $r(175)=.335$, $p<.001$. The differences between the two correlations are significant as predicted in H2.5.ii : $z=1.923$, $p=.037$, one-tailed.

As discussed above, the labels of ‘affective’ and ‘cognitive’ have implications for the time it will take participants to come to an assessment of a target on different issues related to trust. Study 2 recorded completion times for both the risk-based exercises and the expressive exercises, as shown in Figure 3.8. As in all of the analysis above, only the times for those who completed the relevant exercise first are reported. Within these two sets of exercises, some were expected to reflect the ‘cognitive’ label, i.e. those related to ability and competence, while others were expected to reflect the ‘affective’ label i.e. those related to benevolence and integrity. Replicating the finding from Study 1, the mean time taken to complete supposedly ‘affective’ risk-based trust exercises ($M=12.976$ seconds, $SD=7.452$ seconds) is not significantly faster than the mean time taken to complete supposedly ‘cognitive’ risk-based trust exercises ($M=13.156$ seconds, $SD=11.239$ seconds), $t(858)=0.496$, $p=.310$, one-sided. Extending that finding to the expressive measures, the mean time taken to complete supposedly ‘affective’ expressive questions ($M=9.127$ seconds, $SD=9.680$ seconds) was not significantly faster than for supposedly ‘cognitive’ ones ($M=8.900$ seconds, $SD=10.642$ seconds), $t(902)=-0.436$, $p=.669$.

As discussed above, this conclusion cannot be taken too far: participants’ decision time was not controlled and might fluctuate for a range of reasons. These could be prosaic, as participants took the survey at home on a range of different devices, or they could be highly relevant to the research question, if, for example, those with higher cognitive abilities worked through all the tasks more quickly. This might then inflate the variance in decision times and make it very difficult to meet a standard tests for significance. In addition, some of the choices in either the expressive or risk-based questions might be more difficult than others, and this could misleadingly increase the average decision times. Nevertheless, it seems unlikely that this could happen so consistently across three different sectors (in Study 1) and

two different task-types (in Study 2), that it brought the two sets of decision times so closely into line on each occasion. The alternative explanation – of no underlying difference – has the advantage of simplicity, even if it cannot be confirmed fully with the evidence here.



DISCUSSION

Table 3.7 Overview of findings from Study 2

<i>Aim</i>	<i>Goal / Hypotheses</i>	<i>Finding</i>	<i>Discussion</i>
Practical contribution	Start to create a list of potentially viable interventions that businesses could make to increase trust by extending findings from the interpersonal trust literature.	Two of the four interventions examined successfully increased trust on one of the measures used: highlighting the organisation's simplicity or its competitive context.	The interpersonal trust literature can be a source of business-related trust interventions. More specifically, these two interventions have <i>prima facie</i> viability in a business context – without always expecting them to be effective.
Practical contribution	Examine whether the effectiveness of a particular trust-building intervention is dependent on the degree of motivation, novelty, or difficulty experienced by the trustor.	The successful interventions were only successful in one context each: the simplicity intervention succeeded in increasing trust on an expressive survey measure, while the competitiveness intervention succeeded in increasing trust on an incentivised, risk-based measure.	This suggests that it is possible for interventions to only be successful when consumers are processing in a particular way, implying that businesses should pay attention to this in selecting trust-building interventions.
Theoretical contribution	H2.1.i-iii The three treatments (i- <i>Donation</i> ; ii- <i>Trusting others</i> ; iii- <i>Simplicity</i>) aimed at achieving increased trust through attribute substitution will significantly increase trust on the expressive measure (ET) compared to the control group.	(i) <i>Donation</i> and (ii) <i>Trusting others</i> did not increase trust on this measure (or any other measure). (iii) <i>Simplicity</i> did increase trust on the expressive measure as predicted.	A brief intervention on a business's simplicity can increase trust on the expressive measure.
Theoretical contribution	H2.2.i-vi The three treatments (i- <i>Donation</i> ; ii- <i>Trusting others</i> ; iii- <i>Simplicity</i>) aimed at achieving increased trust through attribute substitution will significantly increase expressive measures of both ability (ETA) and benevolence / integrity (ETB). They will not (iv-vi) cause any significant increase in trust on the risk-based measure when it is limited to ability risks (RBA).	(i) <i>Donation</i> and (ii) <i>Trusting others</i> did not increase trust on any of the measures discussed, although they sometimes approached significance. (iii) As predicted, the <i>Simplicity</i> intervention increased the expressive measure of ability (ETB) without increasing the risk-based measure (RBB). However, it did not increase the ETA measure to the extent predicted.	It appears that interventions are linked to a particular domain (performance-risk for ability or relational risk for benevolence/integrity). On the expressive measure, there is some 'spillover' between different domains but not to the point of being identical.
Theoretical contribution	H2.3 The treatment on <i>Competitiveness</i> will significantly increase trust on the risk-based measure (RBT)	As predicted, the <i>Competitiveness</i> intervention increased trust on the risk-based measure but not on the	A brief intervention on a business's competitive environment can increase trusting behaviour in risk-

	compared to the control group. There will be no significant increase in trust on the expressive measure (ET) compared to the control group.	expressive measure.	based trust exercises.
Theoretical contribution	H2.4 The correlation between positivity and expressive trust (ET) will be weaker than in Study 1, but still stronger than the correlation between positivity and risk-based trust (RBT).	Replicating the finding from Study 1, and as predicted here, positivity was more strongly correlated with trust on the expressive measure than on the risk-based measure. Contrary to the prediction, there were no differences between Studies 1 and 2.	This should offer greater confidence that consumers are using the affect heuristic when completing expressive trust measures to a much greater extent than when completing risk-based trust measures.
Theoretical contribution	H2.5 There will be a stronger correlation between positivity and expressive trust (ET) when i) the survey is completed more quickly or ii) only those with a positive or neutral attitude towards the target company are included.	As predicted in (i) the correlation between expressive trust and positivity was stronger for those completing the survey faster but, against the prediction in (ii) there was no similar difference between positive and negative respondents	This offers some further evidence that consumers are using the affect heuristic more when they work quickly, but are not necessarily using it less when they deal with a disliked target.
Theoretical contribution	H2.6 Ability judgements will not be significantly slower than judgements of benevolence / integrity, whether on the expressive or risk-based measures	Replicating and extending the finding from Study 1, and as predicted, there were no differences in task completion times depending on whether the task was supposedly related to cognitive or affective judgements.	This confirms and extends the conclusion that the affective/cognitive distinction in McAllister's (1995) model should, at best, not be taken as a literal reference to different psychological processes.

Practitioners want to understand what will increase trust in their business. The evidence of Study 2, summarised in Table 3.7, does not directly answer that question for any specific practitioner. Even Monzo, the brand that the stimulus was loosely based on, would be unable to use these findings directly to conclude that any specific intervention was a sure-fire trust winner, because the stimulus never mentioned Monzo by name.

But what Study 2 does tell practitioners clearly is that it is possible to design interventions, based on the behavioural science and experimental economics literature on interpersonal trust, to successfully increase consumer trust. These interventions were not large: just a few

extra sentences at the end of a vignette description. In the case of the *Competition* intervention, the extra sentences did not even refer to the target company. Yet they lead to small but significant increases in trust for a newly introduced company, which might in practice have a meaningful commercial relevance. The fact that they have been successful here means they must at least be worth considering by any company aiming to increase trust. They were successful when a more conventional approach, of announcing a large charitable donation, was not.

The *Simplicity* intervention appears to succeed because of the same heuristic thinking that makes simpler stimulus more trusted in other contexts. As discussed in the opening to this chapter, the *Simplicity* of a trustee says nothing about its interests, does not signal that it is a trustworthy type, and provides little basis for affective or cognitive trust. The meta-cognitive experience of simplicity can induce greater trust (e.g., Zurn & Topolinski, 2017) but, from a purely metacognitive view, the *Simplicity* treatment should be slightly more complex than the control group, as they had to read a slightly longer piece of text. While research in a consumer context has established that creating a fluent meta-cognitive experience can increase trust (e.g., Van Boom, Desmet, & Van Dam, 2016), this research suggests that the promise of simplicity, even without the experience of it, is enough to slightly increase trust. This shows the potential advantages of scouring the interpersonal trust literature in the behavioural sciences to identify trust-building strategies that might prove effective at building consumer trust. Of the models of trust-building discussed in Chapter 1, only the behavioural science approach, labelled with the heading ‘trusting fast and slow’ has a detailed explanation as to why this *Simplicity* intervention should be successful in increasing trust, and why that effect should be limited to the expressive measure and not the risk-based measure. However, the effect may be easily disrupted: it loses its significance when we look at participants who

completed the risk-based task first. This could indicate that such interventions can only have a fleeting effect, meaning that practitioners can only make use of them if they can time the intervention to immediately precede a crucial trust judgement.

The *Competitiveness* intervention is perhaps more surprising still. It did not work exactly as expected: the description of the competitive environment made participants feel a little more positive towards the company itself, and did not quite pass the manipulation check on increasing perceptions of a competitive environment. But, crucially, it did increase trust on one of the metrics. This is consistent with the classical liberal model of trust, but the type-signalling and relational/affective models do not predict this effect. However, the classical liberal model would predict that any increased trust was independent of the trust metric. Only the ‘trusting fast and slow’ model predicts that this intervention will only be effective when participants are required to reflect more, in answering the more complex and incentivised questions. In Chapter 2, Study 1 showed how much rarer significant differences between companies were on the risk-based measure, making this difference particularly impressive. At least since Adam Smith wrote the quote that opened this chapter, there has been an idea that self-interest can lead to trustworthiness in a competitive environment – and yet it remains a somewhat counter-intuitive point. When businesses look for trust-increasing strategies, communicating about the competitive situation in their sector might not be as obvious as, for example, talking about a positive record of charitable giving. Nevertheless, this research suggests that businesses should consider asking consumers to put themselves in the business’s shoes, and to infer from that whether the business will be reliable.

A central contention throughout the design and analysis of Study 2 has been the potential context-dependence of interventions. It is natural to note, therefore, that these effects have

only been demonstrated in one part of one sector in one country: ‘challenger’ banks in the UK. In other countries or other sectors, these interventions could fail or even backfire. In particular, the context of the specific brand is omitted, and this could be extremely important for practitioners to consider. It may be that highly-disliked brands do not benefit from being seen as having to compete: rather than expecting a malevolent company to work harder in a competitive context, I might instead assume that it would break the rules. If I am a customer of a brand with a difficult user experience, then talking about simplicity might clash with my experience and irritate me. Practitioners would be wise to conduct experiments along a similar design to test if a message about competition or simplicity actually increases trust in their specific circumstances.

None of the interventions tested in Study 2 increased trust on both the expressive and the risk-based measure. At the very least, this suggests that practitioners who are only using standard survey tools might misdiagnose failure, abandoning attempts to increase trust which failed to move one measure, without knowing whether it is in fact increasing trust in a different, and perhaps more important, way.

More dramatically, if it is accepted that these two measures reflect two different cognitive processes, it implies that intervention success is dependent on the cognitive processes being relied on by the recipient. As discussed further in Chapter Four, practitioners might consider ‘pairing’ specific interventions with situations that are dominated by specific cognitive processes: for example, choosing a heuristic-based intervention for moments when consumers are not paying close attention. Perhaps the most compelling element of the pre-registered hypothesis testing was the success of this ‘pairing’: that, as predicted, the *Competition* intervention only increased trust when it was measured in a highly involved

way, while the *Simplicity* intervention only increased trust when it was measured in an simple, unincentivised way.

Study 2 provided some further evidence in favour of the ‘trusting fast and slow’ model that underlies this thinking. It replicated the finding from Study 1 that the standard expressive measures of trust correlate with overall positivity in a way that the risk-based measures do not. It did not suggest that this correlation depended on how liked or how familiar a target was, but it did suggest it depended on the time taken to make judgements, with faster judgements being more strongly correlated with overall positivity.

Crucially, none of the interventions that were expected to work through attribute substitution had any effect on trust when the participants were expected to be paying close attention and the intervention based on inference had no effect when the participants were expected to be paying little attention. This is the exact pattern that was predicted in the pre-registration, and it is hard to explain it without accepting some distinction between the different types of interventions and the different types of measures. This takes the correlational evidence of Study 1, which was largely replicated in Study 2, and gives it the much greater weight of an experimental design.

However, Study 2 did not provide evidence that attribute substitution is complete in trust judgements. The *Simplicity* intervention did make consumers more trusting in general on the expressive measure and this carried through into the expressive measure of benevolence. It did not carry through to the same extent to the expressive measure of competence, although the direction was the same.

What does the evidence in Study 2 say about potential interventions around charitable giving or trusting others? The pre-registered hypotheses were rejected for these interventions. The fact that these two interventions were unsuccessful would be predicted by the ‘classical liberal’ approach discussed above. However, there are other explanations that are consistent with the type-signalling model of trust-building: we do not know if the signals given here were credible in the sense used within the type-signalling model and perhaps stronger signals or different markets would have produced a different response. The ‘trusting fast and slow’ approach might offer a similar explanation: that model would only need to be rejected if they had succeeded in increasing trust on the risk-based measure but failed to do so on the expressive measure. However, their failure here does not allow us to include them in a list of *prima facie* valid interventions that a practitioner should consider as potential strategies to increase trust. All else being equal, the Study 2 data would suggest that practitioners should explore strategies around simplicity or competition before they start to consider strategies that brandish their charitable or trusting credentials.

Study 2 repeats and extends the finding from Study 1, which questions one of the commonly used models of trust-building: the cognitive and affective model of trust (McAllister, 1995). It might be easy to confuse McAllister’s model for the kind of dual process model of cognition that underpins the ‘trusting fast and slow’ approach - after all, they are both ‘dualist’ in some way. However, the distinctions are practically and theoretically important. The labels of McAllister’s model suggests that some topics for trust-judgements will lead to a quick, emotional reaction, while the ‘trusting fast and slow’ approach suggests some *situations* will lead to that type of reaction. The labels in McAllister’s model mean that there is no room for heuristic cues like a doctor’s white coat leading to a stronger perception of

competence, or for cold-eyed evaluations of the company's incentives making someone more willing to believe they will act with integrity.

Study 2 provided another opportunity, on top of the three provided in Study 1, for these different content-based processes to reveal themselves in participant decision-times. Once again, there are no significant differences in the time taken to make what McAllister (1995) labels as 'affective' trust judgements, compared to what McAllister (1995) labels as questions of 'cognitive' trust. Decision time is not a controlled variable, so a final judgement on this question must await future research. But at the level of correlation, and consistently across both Study 1 and Study 2, this repeated failure to show any difference in decision times at least raises questions for a model that is defined by its two distinct pathways to trust. While the point might seem technical, if practitioners cease to use these labels then their scope for action widens dramatically: allowing them to use emotions to win trust in their company's abilities, or to provide dry evidence of their company's integrity.

The evidence of Study 2 is more consistent with making the distinction between relational risk and performance risk (Das & Teng, 2004), a distinction that is included in McAllister's (1995) model as well as others. In Study 2, it seems that at least on the expressive measures, different interventions have different size effects on these two areas (see H2.2 above).

Whether these two topics exhaust the key areas for trust, or whether integrity forms a separate area for intervention that is separate from benevolence, as in Mayer and colleagues' (1995) model, is beyond the scope of Study 2.

Finally, the order effects discussed above are worth dwelling on. Firstly, when practitioners are using both risk-based and expressive measures of consumer trust in the future, it would be

advisable to divide the sample in two and only ask one type of question with each half. If both types of questions are to be completed by every participant, the analysis here suggests that the expressive trust questions will receive a greater focus if they are asked first, while the impact of going second is less pronounced on the risk-based trust questions.

In the analysis here, the first strategy has been pursued *post hoc* and after the data was examined. For the most part, the results reported here would not be different if the original strategy had been stuck to. The key difference is in the impact of the *Simplicity* treatment on expressive trust, which does not quite meet the level for statistical significance ($p=.053$) when the whole dataset is included. Readers may wish to rely less on that finding because of this. However, the dramatic differences in the times participants took to complete the expressive exercise makes the analysis presented here more useful overall.

Discussion and development of a consulting model

“Thus people on a steamer at sea talk and laugh light-heartedly, for all the world as if they were on dry land; but let the smallest hitch occur, at the faintest hint of something unusual, and their faces instantly express a peculiar anxiety, betraying their unceasing awareness of unceasing danger.”

Ivan Turgenev, *Fathers and Sons*

GENERAL DISCUSSION

A new model of consumer trust-building: ‘Trusting fast and slow’

As set out in Chapter 1, by combining a long tradition of dual processing approaches to psychology and communications (including Petty & Cacioppo, 1986; Tversky & Kahneman, 1973) with more recent work on bounded rationality in interpersonal trust judgements (including Evans & Krueger, 2011; 2014, 2016), it is possible to sketch out a model of consumer trust-building built around different cognitive processes. This model proposes that, by default (Evans & Stanovich, 2013; Kahneman & Frederick, 2002), fast Type 1 processes determine trust judgements, meaning that they are often based on attribute substitution in general (Kahneman, 2002) and, in particular, swapping the complex question of whether a trustee is trustworthy for the simple one of whether or not you feel good about them (i.e. using the affect heuristic, Slovic et al., 2002). However, the model also suggests that “when difficulty, novelty, and motivation combine to command the resources of working memory” (Evans & Stanovich, 2013, p.237), Type 2 processes allow people to come to trust judgements which can be based on complex inferences about a trustee’s likely future behaviour.

Taken together, Studies 1 and 2 provide evidence that different cognitive processes should be part of any model of consumer trust building. The first part of this evidence focusses on the correlation between liking and trusting. If the two are strongly correlated, this is consistent with someone using the affect heuristic, with such correlations used as a common method of demonstrating this heuristic (Finucane et al., 2000; Kahneman & Frederick, 2002). The ‘trusting fast and slow model’ predicts that the correlation will be strong by default, but weaken as people use more Type 2 processing, as predicted in H1.3.i and H2.4. In Study 1 and 2, the correlations are indeed strong when using a simple expressive measure: with r from around .58 to .67 in Study 1, and .59 in Study 2. However, introducing a new, more difficult, incentivised, risk-based measure of trust – i.e. one that should be associated with greater Type 2 processing – produced much weaker correlations between trusting and liking, with r between .12 and .23 across both studies.

Looking beyond the two measurement approaches, Type 2 processing is predicted to be more dominant when dealing with an unfamiliar or disliked target, or if the trustor has greater cognitive abilities, and it is assumed to correlate with working at tasks more slowly and carefully (Evans & Stanovich, 2013; Kahneman, 2011). Study 1 and 2 provide some evidence to support these claims: in particular, the correlation between liking and trusting weakens as participants take longer to make decisions, as predicted in H2.5.i. Unfamiliarity with a named brand also attenuated the correlation between liking and trusting in Study 1, as predicted in H1.3, but the introduction of an unnamed brand did not appear to have this effect in Study 2, contradicting elements of H2.4. Neither greater liking nor greater education, as a proxy for cognitive skills, had any clear affect, against the predictions in H2.5.i and H1.3.ii respectively.

A second strand of evidence comes from the impact of the different interventions in Study 2. The ‘trusting fast and slow’ model predicts that interventions based on heuristics will increase trust on expressive measure but not on the risk-based measure. One of the heuristic-based interventions, the simplicity intervention, did increase trust on that expressive measure, and none of them increased trust on the risk-based measure, partly supporting H2.1. It also predicts that an intervention that requires consumers to make inferences about a business’s future incentives will increase trust on the risk-based measure, but not on the expressive measure, because the expressive measure will not tend to prompt the Type 2 processing needed to move beyond heuristics into making complex inferences. This is what was found in Study 2’s examination of the competitiveness intervention (H2.3).

From this, it is possible to conclude that the types of cognitive processes that are engaged in forming trust judgements are critical to any model of consumer trust-building. Trust appears to be built through the affect heuristic when Type 1 processing is at work, while it can be built on a more complex evidence base when Type 2 processing dominates. While not offering complete certainty on when the two processing types are most likely to be invoked, incentives, novelty, difficulty and speed all appear to be relevant factors that determine the type of processing used in trust judgements.

Implications for other models of trust-building

The research presented here was never designed to fully test the other models of trust-building described in Chapter 1. Nevertheless, it can help, *pro tem*, to provide insight into what, if any, elements from those models should be incorporated into a model of trust-building that is largely built around the fast and slow distinction. In Study 1, there was little evidence to suggest that the three distinct factors of ability, benevolence, and integrity were structuring consumer trust judgements as suggested in the Mayer and colleagues' (1995) 'antecedents' model. However, the division between performance risks and relational risks (Das & Teng, 2004) that is a key part of such type-signalling models does seem to be born out, at least in part, in the impact of the different interventions in Study 2. Therefore, maintaining some distinction between being trusted over questions of ability, and questions of benevolence and integrity, appears worthwhile.

At the same time, Studies 1 and 2 provide some evidence against the idea that we use different processes for different kinds of trust questions – affective processes for relational questions and cognitive processes for performance questions, as proposed by McAllister (1995). These judgements appear to be happening through similar processes, as examined in H1.4 and H2.6. This is important because the affective and cognitive trust model would suggest that affective interventions should only drive trust around relational risks, while cognitive interventions should only drive performance risks. If cognitive and affective processes are both used by consumers across relational and performance risks, as proposed in the 'trusting fast and slow' model, then this increases the range of potential interventions that might be worth considering. There is no reason not to address performance risks with a highly emotive advertising campaign, or to reassure customers of that the company will act ethically using cold and logical arguments.

The successful interventions: Simplicity and competitiveness

As shown in Chapter 1, there are a wealth of potential interventions that a business might hope will increase trust. Study 2 shows that at least two of the findings from the interpersonal trust literature can generalise to a consumer trust context: an emphasis on simplicity and a reminder that the trustee operates in a highly competitive market and therefore needs to maintain a good reputation. These two interventions have only been shown to work in one market, in one country – nevertheless, they present interesting candidates for practitioner action. Two other interventions, grounded in the type-signalling model of trust-building, were unsuccessful: not necessarily ruling them out, but at least putting them towards the ‘back of the queue’ for practitioners until they can be shown to be more successful in a consumer context.

As discussed in Chapter 3, many practitioners have suspected that simplicity was a route to business success (for example, Ashkenas, 2009). The findings from Study 2 suggest that greater simplicity can increase consumer trust, that the mechanism is a heuristic one, but it does not necessarily rely on immediately experiencing cognitive fluency (as in, for example, Van Boom, Desmet, & Van Dam, 2016). Ironically, many ‘legalistic’ things that companies do to meet standards of trustworthiness (Sitkin & Roth, 1993), such as, in a consumer context, providing the ‘small print’ on advertisements, might actually make the consumer experience less fluent, and therefore make the company less trusted. Practitioners should be sensitive to the impact to the impact on consumer trust of any decision to complicate communications or add extra steps on a customer journey.

The success of a competitiveness-based intervention raises some new questions for practitioners, who might typically be expected to focus on the strengths of their company, rather than the nature of the market they operate in. Because an intervention based around a competitive marketplace doesn't require the firm itself to have particular characteristics or a track record, it might be particularly appealing to a new entrant. They could say 'you may not have heard of us, but in this market the only way to succeed is by treating people right'. At the same time, in sectors that have been accused of untrustworthy behaviour, such as banking, the arrival of new entrants or regulatory changes that encourage competition may have the effect of driving up trust as a whole. It may even be in a dominant incumbent's interest to at least generate the impression of greater competition.

Instrumental or expressive trust: a contextual rather than a conceptual issue?

This research developed a risk-based approach to measuring consumer trust alongside more standard, risk-free survey question approaches, analogous to the development of risk-based games to measure interpersonal trust (Berg, Dickhaut, & McCabe, 1995). Studies 1 and 2 combine to show that the two measurement approaches produce somewhat different answers in the realm of consumer trust, just as they have done in the realm of interpersonal trust (see, for example, Wilson, 2018). Given the importance of risk or vulnerability to most definitions of trust (see, for example, Rousseau et al., 1998), it can be argued that the risk-based measurement approach is more faithful to the concept of trust, particularly when linked to trusting behaviour, which must always be risk-taking in some way.

As discussed at greater length in Chapter 1, definitions of trusting beliefs or intentions can either emphasise strategic thinking – instrumental trust – or see trust as uncalculating and

‘expressive’ (Dunning, Fetchenhauer, & Schlosser, 2012). Making this conceptual split helps to navigate the vast literature on trust, avoiding the unappealing cul-de-sac that beckons if we say that half of the literature that discusses trust in different disciplines doesn’t really discuss trust in terms of our preferred definition. However, this is a conceptual distinction, not an explanation. It might make us more comfortable with the fact that the different measurement approaches produce different results, but it doesn’t tell us why they should. It offers no predictions for when the instrumental trust definition will be most relevant, and when the expressive trust concept is more appropriate.

The ‘trusting fast and slow’ model offers more of an explanation, starting from the trustors’ context. It suggests that, by default, trust judgements are expressive: they are indistinguishable from liking or disliking, because people make trust judgements using the affect heuristic (Slovic et al., 2002) as described above. But as people start to use Type 2 processing, trust judgements become less influenced by this heuristic. This is particularly true for the risk-based measurement approach because it introduces difficulty, novelty and motivation in its very design, but the pattern can also be seen in, for example, the finding that the correlation between liking and trusting weakens when participants complete the standard survey measures more slowly (H2.5.i). Only the risk-based trust measure allows for trust to be truly instrumental, in that participants can win or lose from their trust judgements. But whichever approach is used, when Type 2 processes are invoked, judgements appear to conform less to the expressive trust definition.

Seeing the distinction between expressive and instrumental trust as being driven by different cognitive processes helps to integrate the existing literature and also offers some interesting guidance for future research. In many traditional surveys about trust, it may be hard to get

participants to engage Type 2 processes, as they are only compensated after completing the survey and have no incentive to focus exclusively on their task. By contrast, the strange surroundings in lab studies of trust, especially those that are conducted using equipment like fMRI scanners (e.g. Fett et al., 2014), may inevitably lead participants away from their default Type 1 processes. Researchers examining trust, both amongst consumers and beyond, must be highly sensitive to these contextual factors if they fundamentally change the way that trust judgements are formed.

A CONSULTING MODEL TO INCREASE CONSUMER TRUST

The challenge of an effective consulting model

As discussed in Chapter 1, greater consumer trust can be valuable for businesses in different ways. In one sector, success might go to the company which can first win consumer trust in a new innovation, while in another sector, greater trust might enable a company to charge a higher price without reducing demand (Harris & Wicks, 2014). The kind of trust that is valuable to Google might be very different from the kind of trust that is valuable to McDonald's. While Kramer (2014) argues that trust is most valuable when it is presumptive – in my terminology 'fast trust' – Petty and Cacioppo (1986) instead argue that when judgements are arrived at through considered processes – in my terminology 'slow trust' – then they are more likely to persist and affect behaviour. To be actionable for practitioners, a consulting model must be sufficiently flexible that it can be applied in these very different business environments, and still have something to say. Inevitably, this leads more to a set of questions, perhaps asked in a specific order, rather than an 'off-the-shelf' solution for all circumstances.

In the field of consumer and wider corporate trust, Gillespie and Dietz (2009) set out a consulting model that provides the initial inspiration for the one described here. Their focus is on rebuilding trust after some kind of major crisis or organisational failure. Their model has four stages: an immediate response after the crisis, such as an apology, a diagnosis as to what caused the failure, a set of interventions designed to fix these problems, and an evaluation. The process is designed around the trust-breaking incident, and builds on a well-developed

literature on how trust is rebuilt after it has been broken at an interpersonal and intraorganizational level (for example, Kim, Dirks & Cooper, 2006; 2009).

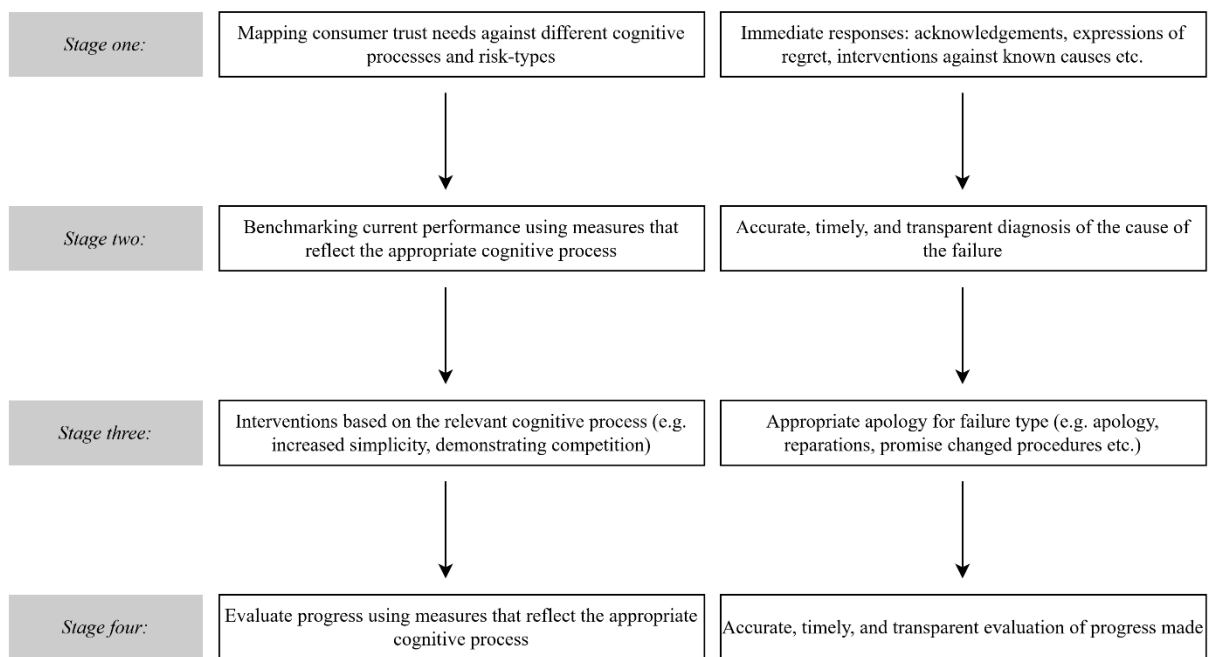
The model set out in the remainder of this chapter takes a similar, four-stage structure as used in Gillespie and Dietz (2009), moving from diagnosis to intervention to evaluation. However, there is no trust-breaking incident: instead, the business is assumed to be interested in increasing trust in general, rather than after a crisis. In contrast to the literature on rebuilding trust, the consulting model uses the ‘trusting fast and slow’ model of how trust is built, described above, with a central role for different cognitive processes in determining the optimal intervention and measurement approach. Firstly, the model is set out using a similar series of propositions as used by Gillespie and Dietz and extended by Poppo and Schepker (2014). These might be tested in future research but are not tested empirically in this paper, following the same approach as both Gillespie and Dietz and Poppo and Schepker. Following this, two illustrations describe how the model might be deployed in two different hypothetical, but realistic, business contexts.

Also following Gillespie and Dietz (2009), the consulting model proposed here focuses on identifying what might move trust, and then measuring whether it has moved. It does not then go on to measure the cost of the intervention and the increased revenue that comes from the increased trust, which would be needed in order to calculate the returns to the investment. The question addressed here is not the primary question, ‘would increasing trust increase my profits’, but the secondary question ‘if I wanted to increase trust, how could I go about it?’ To answer that primary question with evidence might be possible in some contexts if there is a well-evidenced link between trust perceptions and a specific consumer behaviour for the company concerned (e.g., Resnick, et al., 2006). However, it is also a difficult undertaking in

many circumstances: as discussed above, very few consumer behaviours are solely driven by trust, but might instead be produced in combination with other factors, such as product attractiveness. In this model, the manager is assumed to have already arrived at the judgement that increasing trust would have tangible benefits to their business.

Figure 4.1 Consulting models for consumer trust

Overview comparing the consulting process proposed in this paper and by Gillespie and Dietz (2009)



Consulting model based on 'Trusting fast and slow' approach

Gillespie and Dietz (2009)

A consulting model based on ‘trusting fast and slow’: Stage one

The consulting model is divided into four stages as shown in Figure 4.2. The initial task, in stage one, is to consider what different consumer trust judgements are important to the target business. The importance of a particular judgement must be related to the business’s strategy: for example, a Chinese firm with no plans to move into Europe might decide that the trust judgements of European consumers are not important to their business. By definition, as discussed in detail in Chapter 1, trust judgements must in some way relate to risk or vulnerability (Rousseau et al., 1998), reducing the scope from all important consumer perceptions, to just those that might determine whether a consumer takes a risk on the company or not.

These risks can be further sub-divided based on whether the vulnerability is connected to the choices of the company – ‘relational risks’ – or the abilities of the company – ‘performance risk’ (Das & Teng, 2004). In practice, this may not always be an easy distinction to draw (Poppo & Schepker, 2014): if a restaurant serves me the wrong order, is it because the staff were too busy to ensure the order was accurate (performance risk), or is it because they didn’t care and so chose not to check (relational risk)? Given this analysis is based on the consumer’s judgement rather than the company’s, it seems sensible to resolve such questions in line with the consumer’s interpretation, which might simply be gleaned from discussions with frontline staff or, if important enough, might itself be the subject of qualitative or quantitative consumer research.

With this list of trust judgements in hand, the next stage is to ask what cognitive process the consumer is likely to be using when they form each judgement? Based on the ‘trusting fast

and slow' model, the default assumption has to be that they will use fast Type 1 processing (Evans & Stanovich, 2013; Kahneman, 2011; Kahneman & Frederick, 2002). However, they are likely to use slow Type 2 processing when they have sufficient motivation – for example, because of high stakes – or when they face a novel or difficult situation (Evans & Stanovich, 2013). Using this rule, it should be possible to classify the situations where people make different trust judgements into situations where Type 1 or Type 2 processes are likely to dominate, without any additional fieldwork. However, qualitative and quantitative observation of consumer behaviour in the relevant situation may provide additional insight to help with this process.

It may be helpful at this stage to break up the different judgements based on different products in the business's portfolio, customer segments, stages in the customer journey, or in different risk scenarios, because these different subgroups are expected to use different cognitive processes. New customers presumably often experience novelty, prompting Type 2 processing, while existing customers might not. Certain products might especially involve high stakes or be difficult to engage with, particularly for certain groups, which might again prompt more Type 2 processing. At different stages of a customer journey, different processes might be engaged because the different stages include a different mix of motivation, novelty, and difficulty. We might also imagine risk scenarios that affect the degree of motivation, novelty, and difficulty: for example, at the time of writing, many consumers are starting to return to different businesses as Covid-19 lockdown restrictions are eased. We might suspect that in such circumstances, there will be extra novelty and difficulty from new processes, and a greater motivation to avoid infection, and that this will increase Type 2 processing, at least initially. If one business has to shut down again because it

becomes a Covid-19 hotspot, this same pattern might repeat, as customers warily return and then slowly get used to the situation and revert back to their default eventually.

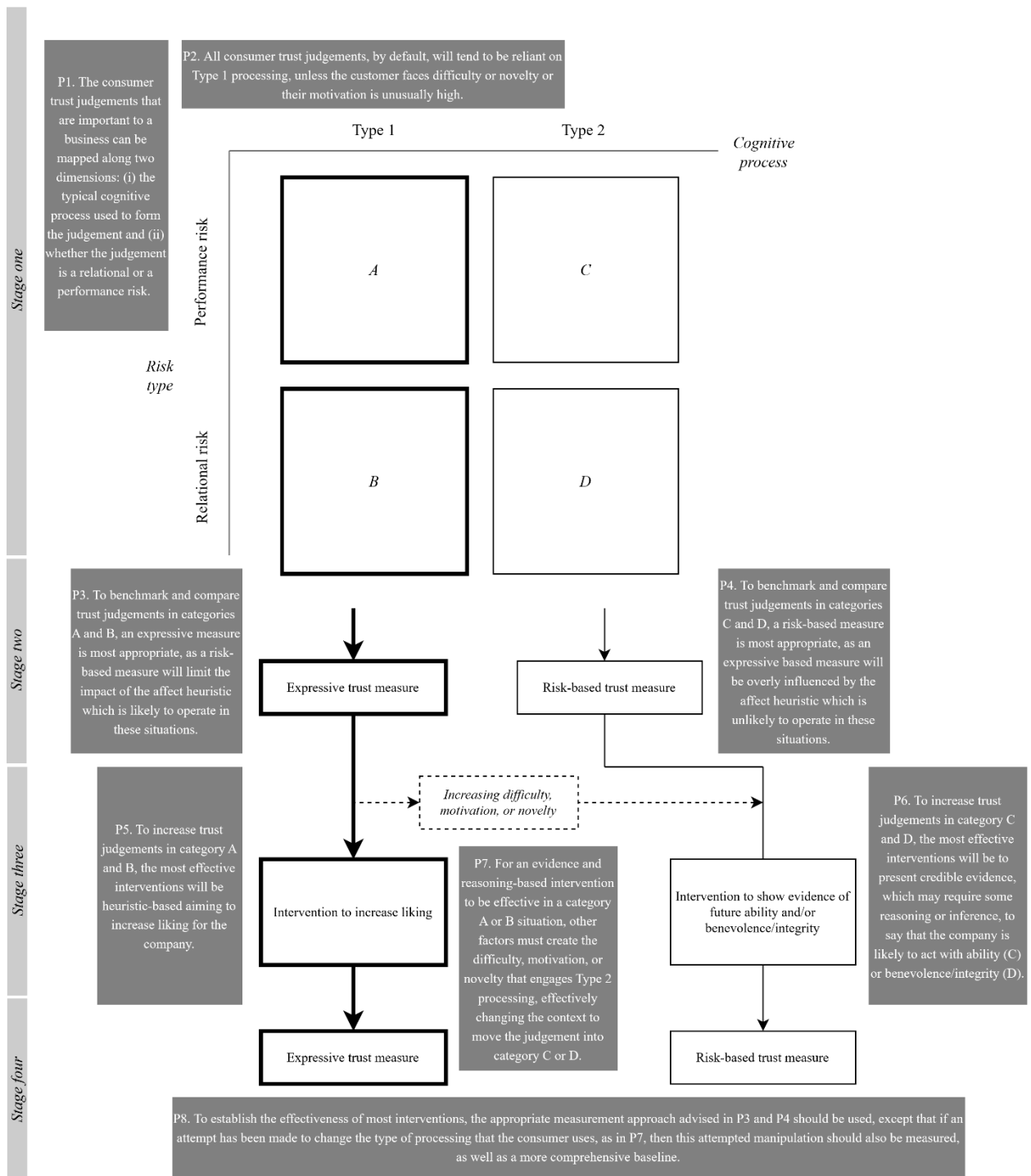
The approach is shown in Figure 4.2 and described in the following propositions:

Proposition 1 – The consumer trust judgements that are important to a business can be mapped along two dimensions: (i) the typical cognitive process used to form the judgement and (ii) whether the judgement is a relational or a performance risk.

Proposition 2 – All consumer trust judgements, by default, will tend to be reliant on Type 1 processing, unless the customer's faces difficulty or novelty or their motivation is unusually high.

Figure 4.2 The consulting model in more detail

Mapping different trust judgement situations based on the typical cognitive process and the type of risk involved.



A consulting model based on ‘trusting fast and slow’: Stage two

With the trust judgements mapped in stage one, stage two seeks to complete the diagnosis by looking at the standing of the target company on the different judgements. This standing could be thought of in absolute terms: for example, a binary question about whether the trustor is willing to make a purchase. More commonly, however, it might be thought of in relative terms, with the target company benchmarked against other companies, often its direct competitors. Either way, the aim is to focus attention where improvement will be most valuable. This is partly a function of how the judgement plays back into the firm’s own business model – particular trust judgements might be linked to particularly profitable activities. But it is also a question of whether the business is a laggard, indicating room for improvement, or if the business is a high performer, indicating a potentially differentiated strength that might be protected but has little room for growth.

The key innovation at stage two is that the measurement tool used to assess this situation depends on the cognitive processes that consumers are using to form trust judgements, as identified in stage one. As described above, the risk-based measure of trust developed in this research is taken to be associated with Type 2 processing, while the more traditional expressive measure of trust is taken to be associated with Type 1 processing. If we have an idea of which cognitive processes consumers will use in the field, then our measurement tool can match that process.

In an ideal world, using both types of measure would provide the greatest insight, but if the business can only devote resources to one approach, then it is vital that they choose the appropriate one. If the measurement tool is not matched to the relevant cognitive process

used by consumers, then we should expect a mismatch between the measurements and consumer judgements ‘in the wild’. This approach is described in the following two propositions, using the categories shown in Figure 4.2:

Proposition 3 – To benchmark and compare trust judgements in categories A and B, an expressive measure is most appropriate, as a risk-based measure will limit the impact of the affect heuristic which is likely to operate in these situations.

Proposition 4 – To benchmark and compare trust judgements in categories C and D, a risk-based measure is most appropriate, as an expressive based measure will be overly influenced by the affect heuristic which is unlikely to operate in these situations.

A consulting model based on ‘trusting fast and slow’: Stage three

As a target company moves into stage three, they should have selected the trust judgements that they most urgently need to address and have a good idea of the cognitive processes used to make those judgements. Then the task is to select and design an intervention to increase trust. The idiosyncrasies of the specific market, the specific business, and the specific trust judgement are all likely to play a role in determining which approaches are most plausible. Nevertheless, as described in detail in Chapter 1, there are many studies that might inspire an intervention even if we only look at interventions that have been discussed in a business context. When we expand the list to consider interventions inspired by the interpersonal trust literature, it grows substantially. It is necessary to isolate a smaller list of candidate interventions – and the consulting model does this by considering both the nature of the trust risk concerned and, most importantly, the cognitive process involved.

The contention from the ‘trusting fast and slow’ model is that the cognitive processes used by consumers will have a critical role to play in determining the effectiveness of any intervention. Firstly, we can look at this from the default situation, when consumers are relying on Type 1 processing. In such a situation, the affect heuristic is expected to play a large role in determining trust judgements. Therefore, the target company should consider interventions that seek to build trust through that heuristic. At the ‘front of the queue’ for such consideration is an intervention around simplicity, having been shown to be potentially effective in Study 2. But this does not exhaust the affect heuristic: many different interventions might make a company more liked, or simply make a consumer feel more positive in the moment that they are making the judgement.

In relying on heuristics, we should expect some overlap between the effects of interventions connected to ability and those connected to benevolence or integrity, rather than a strict separation that implies ability is only relevant to performance risk and benevolence or integrity are only relevant to relational risk. In Study 2, the simplicity-based intervention increased both the ability-related and the benevolence-related expressive measures, but the former move was smaller and did not meet the threshold for statistical significance. There may be some heuristic interventions that similarly ‘lean’ towards performance risk or relational risk, but the suggestion from this approach is that they can all be considered as potential interventions if participants are expected to be using Type 1 processing. Using the categories shown in Figure 4.2, the following proposition sets this out:

Proposition 5 – To increase trust judgements in category A and B, the most effective interventions will be heuristic-based aiming to increase liking for the company.

We can also look at the situation from the perspective of a company that decides it needs to increase trust when consumers are paying attention and thinking carefully, i.e. in category C or D in Figure 4.2. As shown in Study 2, when consumers are using Type 2 processes, their trust judgements can be based on complex inferences about the likely behaviour of the trustee. This was achieved by reminding consumers about the competitive environment that the company faces and allowing them to infer that the company will need to behave in a trustworthy way in future. But other interventions would also fit into this category: particularly some of the interventions under the classical liberal model and credible signalling approaches discussed in Chapter 1, including pointing out that strict regulations mean the firm has no incentive to defect or using large investments in advertising to signal a commitment to preserving the reputation of a particular product.

Some of these interventions might specifically address either performance or relational risks: for example, the threat of being imprisoned for fraud might be a good reason not to expect outright lies, but it might not be a convincing reassurance when it comes to shoddy workmanship. However, some might act as a deterrent to both: the competitive environment might incentivise a company to act with benevolence and integrity *and* ensure that its products are always high quality. The following proposition sets out the approach using the categories from Figure 4.2.

Proposition 6 – To increase trust judgements in category C and D, the most effective interventions will be to present credible evidence, which may require some reasoning or inference, to say that the company is likely to act with ability (C) or benevolence/integrity (D).

Companies do not simply have to accept the cognitive process that consumers are using: if they think it is to their advantage, they could try to engage another cognitive process. In Petty and Cacioppo's (1986) elaboration likelihood model, variables can act as persuasive arguments, peripheral cues, or affect the degree of elaboration. Similarly, a business can make an intervention aimed at each of these different potential levers. For example, if a business has a strong intervention to make that requires complex inferences, they could seek to introduce novelty, extra motivation, or extra difficulty to encourage consumers to use Type 2 processing. This is what was done in Study 2: the risk-based trust measure led to increased Type 2 processing, meaning that the more complex evidence around competition was taken into account in forming trust judgements. In general, when the business possesses strong arguments, it will be advantageous to increase Type 2 processing, and it will often be necessary to do so when seeking to achieve a long-term shift in behaviour (Petty & Cacioppo, 1986).

It seems more likely that the shift would happen in this direction, from Type 1 to Type 2, especially given Type 1 processing's default status (Evans & Stanovich, 2013; Kahneman & Frederick, 2002). A reverse process is not out of the question: it would be one way of interpreting the finding from Lount (2010) that an intervention to increase positive mood increases reliance on simple schema in interpersonal trust judgements. However, as it is not the assumed default and, as discussed further in Chapter 5, it raises additional ethical questions, this model focuses on the potential to shift consumer processing from Type 1 to Type 2. Proposition 7 summarises the approach:

Proposition 7 – For an evidence and reasoning-based intervention to be effective in a category A or B situation, other factors must create the difficulty, motivation, or

novelty that engages Type 2 processing, effectively changing the context to move the judgement into category C or D.

Dual process models of attitude formation have suggested that persuasion is more fleeting when it operates through the Type 1 route (Chaiken, Liberman, & Eagly, 1989; Petty & Cacioppo, 1986). Consistent with this, the intervention in Study 2 which aimed to work through these heuristic processes was only significant when looking at participants who went straight from the *Simplicity* claim to the expressive measure, without the distraction of the risk-based measure. This could mean that practitioners decide to try and engage Type 2 processing in order to make their impact more robust and long-lasting. While the evidence presented in Studies 1 and 2 do not provide enough evidence to make this claim strongly, such a strategy would be consistent with this wider literature.

A consulting model based on ‘trusting fast and slow’: Stage four

Finally, at stage four, once the interventions have been made, the target company will presumably want to know how effective they have been. For all the reasons presented above, it is critical that trust is measured in a way that reflects the cognitive processes consumers will be using. For the most part, this means that the same measurement approach should be used to judge interventions as was used for the benchmarking in stage two, which might also provide a pre-intervention baseline. However, there is a need to take a slightly different approach if the business has sought to change the consumers’ cognitive processes in stage three. If this has been the goal, then trust needs to be measured using both measurement approaches and a manipulation check, such as checking time to complete different elements of the customer journey, also needs to be introduced. This will mean that, if the intervention

is unsuccessful, it is clear whether it was the trust-building or the process-shifting actions that were unsuccessful.

Proposition 8 – To establish the effectiveness of most interventions, the appropriate measurement approach advised in Propositions 3 and 4 should be used, except that if an attempt has been made to change the type of processing that the consumer uses, as in Proposition 7, then this attempted manipulation should also be measured, as well as a more comprehensive baseline.

If a company takes each of the steps outlined, it gives itself a strong chance of identifying an effective trust-building intervention. By focussing on specific trust judgements and the cognitive processes associated with them, it shifts from general appeals to increase trust to a highly granular and business-led process to develop a trust-building intervention. From this position, it can judge where it stands today relative to the competition, select interventions that go with the grain of the customer's cognitive processes, or seek to increase customer attention in order to make a complex trust-building message have a greater effect. Ideally, a company might make many interventions, perhaps using regular trials and experimentation to find which intervention had the greatest impact on the appropriate trust metric. Such an approach is easier in fields with lots of A/B testing, such as website design, than in fields where each intervention is very costly and time consuming (see Bojinov, Saint-Jacques, & Tingley, 2020 and King, 2020, for a practitioner perspective on implementing these techniques). However, in those latter fields it is even more important to select an intervention with the greatest chance of success, something this model should help the business to do.

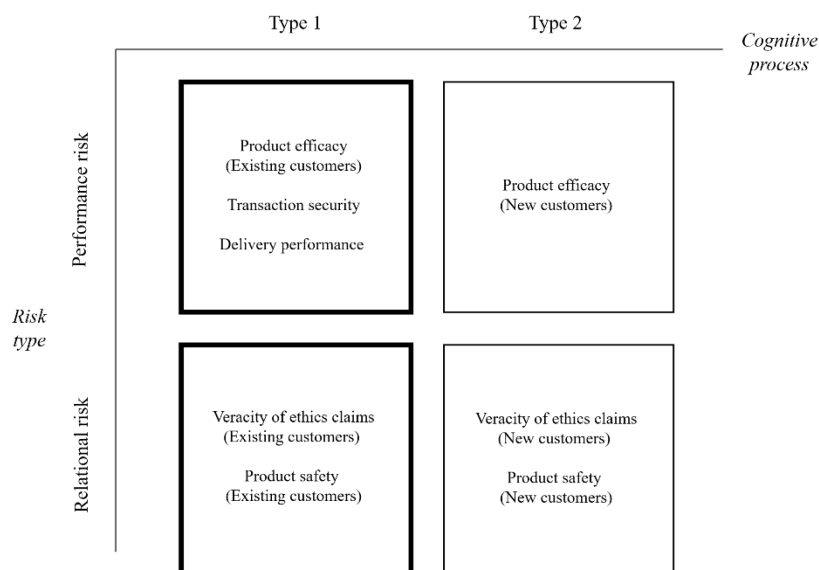
To help show how the process responds to different business circumstances, two fictional companies are used to illustrate each stage of the consulting process. While the scenarios are hypothetical, they are designed to capture realistic business challenges.

Illustrating the consulting model with a fictional example: An online cosmetics company

ThousandShips.com sells cosmetics online, offering them at lower costs than many competitors who work through bricks-and-mortar sales channels. It has a dedicated following, but a relatively small market share compared to both the long-established giants of the industry and more recent entrants that particularly emphasise their ethical credentials. ThousandShips.com believes its product quality matches the bigger players and that its ethical policies are just as stringent as the more recent entrants, and its main strategic priority is to grow its market share.

Figure 4.3 Illustrative example of stage one

Example trust judgement map for a fictional online cosmetics company *ThousandShips.com*



In stage one, the ThousandShips.com executives identify five trust judgements that are critical to their business. In terms of performance risk, the critical one is product efficacy: can ThousandShips.com's promises about results, colours etc., be trusted? There are also some performance risks that are common to any online product sales: will the credit card transaction be secure and will the order arrive on time and intact? There are also risks that are relational, in that they focus on the benevolence and integrity of the trustee: firstly, given these are products that will be applied on the face, could it cause some unsightly or unhealthy problem? Secondly, its products carry a label saying that they are not tested on animals, but consumers who are concerned about this must trust that this claim is true.

Based on the rule that Type 1 processes are the default, the starting point for the team is to assume that all these trust judgements are currently formed through Type 1 processing. However, as a company focussed on growing market share, it is natural for the business to divide consumers into dedicated customers and potential customers who have not yet tried its products. This latter group is used to buying other goods online, but have not bought from ThousandShips.com, meaning that there is an extra layer of novelty and potential difficulty in their first encounter with the ThousandShips.com website. From this, the company assumes that trust judgements around product efficacy, safety and ethics will be handled by Type 2 processes when a customer is new.

At stage 2, ThousandShips.com commissions two small pieces of research. The first is a satisfaction survey of existing customers, using standard expressive questions, and asking them to benchmark ThousandShips.com against competitors on all of the different risks discussed so far, from delivery times to ethics. The second is a risk-based trust survey, aimed

at the much larger group of potential customers, and asking them to make bets on probability of different risk events happening for different competitors, focussing on product efficacy, safety, and ethics.

From the expressive survey, the business learns that existing customers have no worries about transaction security or delivery performance for any of the competitor set, including ThousandShips.com. With these existing customers ThousandShips.com outperforms on questions around product safety and efficacy but underperforms on ethics compared to the recent entrants who have focussed on ethics more explicitly. This last finding is a worry for the executive team until they see the results of the risk-based trust survey, which shows that potential customers trust ThousandShips.com just as much as the ethics-focussed competitors in their risk-based trust exercises. They interpret this finding to mean that, while other brands might have a strong association with ethics, when people stop and think about it, they don't believe any brand could afford to lie about whether it tested on animals. However, the risk-based trust survey identified a different problem: that ThousandShips.com underperforms with potential customers when they make gambles around product efficacy.

In phase three, the firm decides that the focus of its trust strategy should be on this issue of product efficacy. Because it is aimed at new customers, who are assumed to use Type 2 processing in their interactions with ThousandShips.com, the team tasked with developing a trust-building intervention consider those interventions that involve some complexity or inference-drawing on the part of the trustor. They decide to create a special landing page for new arrivals on the website that says ThousandShips.com will only succeed if it builds a loyal following in a market where customers can easily switch if they are dissatisfied – a form of the competitiveness argument used in Study 2. This is A/B tested, i.e. using tracking cookies

to show the new landing page to fifty per cent of new customers, with a follow up survey using risk-based trust measures to establish whether or not trust has increased.

If we assume that the intervention is as successful as the similar intervention described in Study 2, then ThousandShips.com will have achieved a significant increase in trust amongst its priority audience, without expending substantial sums of money. Not only that, but they will have avoided taking the path that might have been recommended based on a traditional survey approach but which this model suggests would have been ineffective i.e. seeking to compete with the more ethics focussed brands by investing the marketing budget into promoting to potential customers the fact that the company does not test on animals.

Nevertheless, the executive team might still be concerned that existing customers have less faith in ThousandShips.com's promises on animal testing. This isn't stopping them spending money on the site; but perhaps they would spend more if these concerns were addressed.

When questions around animal testing are on existing customers' minds – for example, after an NGO campaign launch – ThousandShips.com may need to reiterate its commitment to not testing on animals. The implication from the stage two findings is that when people use Type 2 processing, they infer that the company would not take the risk of lying in its material. In designing its marketing responses to an NGO campaign launch, the company could choose to introduce greater novelty through a particularly unusual piece of advertising, which might prompt greater Type 2 processing as people judge the trustworthiness of the business's pledge.

Illustrating the consulting model with a fictional example: A medium-sized mortgage broker

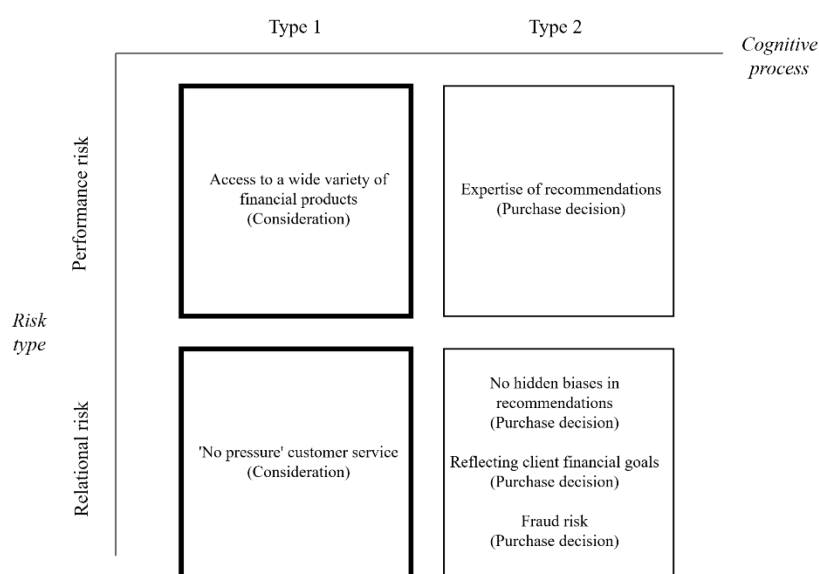
Cooper & Phillips LLP are a mortgage brokerage working in a regional city outside the country's main financial centre. Their business model is to advise first-time homebuyers on mortgage products, charging a fee for their expertise and for making the arrangements, and then providing financial advice on mortgage and other financial products as the relationship continues. There are many other similar firms, although most are based in the country's main financial centre, and consumers can also access mortgages directly through banks and building societies, rather than using a mortgage broker. Over the medium term, homeownership is expected to grow substantially in Cooper & Phillips' area, and the business is poised for success if it can win a share of this growth.

The two partners, between them, have no problem completing phase one, and creating the map of trust judgements shown in Figure 4.4. They think about the judgements in terms of a customer journey. At the consideration stage, potential clients need to trust that they have a good range of mortgage products, something that many first-time buyers are ill-equipped to assess. Potential buyers may also be nervous of engaging with a system they don't understand, being asked intrusive questions about their incomes and lifestyles, or being pressured or harassed by relentless marketing efforts if they start a conversation with a mortgage broker. These factors come into play at the consideration stage of the customer journey where, by default, we might assume that potential customers are using Type 1 processing.

At the point of making a decision about a mortgage, however, it seems reasonable to assume that participants would be highly motivated to get the decision right, as well as finding the experience novel and somewhat difficult. Therefore, Cooper & Phillips can assume that participants making trust judgements at this stage in the customer journey will be using Type 2 processes. Perhaps the most important of those trust judgements is trust in the specific recommendations that the company is making: is their expertise good enough to recommend a product that effectively minimises mortgage costs for the customer? At the same time, the customer might also worry about the benevolence and integrity of the mortgage broker: at one extreme, they are trusting the broker with all their financial information and perhaps with some powers to make the financial arrangements, so there must be some risk they could become the victim of fraud. At a less extreme level, the customer must trust that the mortgage broker has tried their best to reflect their clients' interests – listening to the client's own expressed financial goals and not pushing products that might be inappropriate for the client but would earn the broker a larger commission.

Figure 4.4 Illustrative example of stage one

Example trust judgement map for a fictional mortgage brokers and financial advisers *C&P LLP*.



At stage two, Cooper & Phillips decide to commission an online survey of a representative group of would-be homebuyers in the region they operate in. The survey starts with a series of expressive trust questions, followed by risk-based trust questions. It examines mortgage broking as a whole, rather than attitudes to their firm in particular, as none of the firms in the market have a great deal of name recognition. The initial survey results make for depressing reading for the partners: most respondents dislike brokers and financial advisers, and agree with statements like “financial advisers only care about their own profits”, “mortgages are confusing” and “normal people can never get the best deals”. However, in the risk-based trust exercise, participants transfer similar amounts around risk events involving mortgage brokers as they do for banks and building societies. Many are willing to bet that the sector will not experience a scandal where mortgage brokers being found to recommend bad products to their clients. However, few are willing to bet that no advisers will have been found to be taking secret commissions from mortgage providers, biasing their recommendations.

At stage three, the two brokers divide their efforts. Cooper looks at the problem of low initial trust at the point of consideration, when participants might be assumed to use Type 1 processes. She decides to make the initial contact with the firm as simple as possible: rewriting the website to make it easier to understand and allowing customers to browse and ask questions without having to complete any long forms, sign prior consent agreements, or otherwise have to deal with the ‘small print’. A process of A/B testing, with a follow up survey using expressive trust questions, helps her identify the design that best drives trust in this way.

Meanwhile, Phillips focusses her attention on trust in unbiased recommendations. The point when this worry emerges, they have decided, is likely to be when customers are thinking

seriously about a purchase, and are using Type 2 processes. She introduces a point in the advice process when the client is informed about the stiff regulatory penalties that any broker would face if they failed to disclose commissions from the mortgage provider. If the firm were larger, this could be trialled experimentally within the firm, but given it is built around two key individuals, she doesn't think this will be possible. Instead, the firm runs a short online experiment along the lines conducted in Study 2. Consumers are split into treatment and control groups and informed about the mortgage broking process. The treatment group receives an extra layer of information saying that mortgage brokers who fail to disclose commissions are liable for strict criminal punishments. By measuring the differences in different risk-based trust exercises, she can test how effective the intervention is in this setting, and from this, draw some inferences into her practical setting.

Applying the model in more contexts

The model set out here does not replace the trust recovery model set out by Gillespie and Dietz (2009). That model responds to a specific trust-breaking incident, while this model requires no such impetus. Practitioners should pick between them, depending on their circumstances.

The model that has been set out in this chapter is versatile, as can be seen from the variety of contexts and choices described in the two fictional illustrations. Whether we consider a product or a service, an experienced customer or a casual one, and a high stakes transaction or an everyday one, this model can not only cope with the variety of different business models in the consumer-facing economy today, it should directly respond to those different business models and provide advice that links directly to the specific ways that trust might be

important to those businesses. It requires practitioner judgement at every stage: it cannot simply be taken down from the shelf and used to identify the optimal response. However, it does not leave practitioners relying on their judgement alone: it draws their attention to particular questions in particular circumstances, and helps them focus on the interventions which have the greatest promise for their business.

The ability to shortlist which interventions will have the greatest promise comes directly from the ‘trusting fast and slow’ model of trust-building. This approach is consistent with much other research on interpersonal trust and communication, as discussed in detail in Chapter 1. It is supported in large part by the empirical findings from Studies 1 and 2. While the consulting model set out here will no doubt be improved as it is trialled and applied, as discussed in the subsequent chapter, the contention here is that no future consulting model on consumer trust can afford to ignore the different cognitive processes that consumers use.

Conclusions, limitations, and applications

“Trusting everyone is as much a fault as trusting no one (though I should call the first the worthier and the second the safer behaviour).”
Seneca, *Letters from a Stoic*

The core output of this project, described in the previous chapter, is a consulting model that practitioners can apply to increase trust in their own idiosyncratic contexts. Rather than building that consulting model simply on existing theories about consumer trust, or existing practitioner experience, the consulting model is instead built on a new model of how consumer trust is built. That new model focusses on how different cognitive processes might lead to different trust judgements and, in particular, how appropriate measurement tools and the potential of different interventions can both be dependent on the cognitive process a consumer is using to make a trust judgement. This model, called here ‘trusting fast and slow’ is inspired by the dual process models of cognition (including Kahneman, 2002; 2011), on bounded rationality in interpersonal trust (including, Evans & Krueger, 2016) and attitude change (including Petty & Cacioppo, 1986). The evidence presented in Chapters 2 and 3 provides the empirical basis for such a model in the arena of consumer trust.

Limitations and further research

There are obvious limitations in the research design undertaken in Studies 1 and 2. Firstly, while people participate in the survey from their own homes or via their own mobiles, it is an artificial task that shares more with a lab setting than a field one. Subsequent research is needed to show how the ideas espoused here apply in a real-world commercial decision

making. And while the consulting model is based on the empirical analysis presented in Studies 1 and 2, it has not yet been applied to a real business. As can be seen from the illustrations in Chapter 4, the consulting model leaves a great deal of room for practitioner judgement, and one or more real-world case studies might, in future, help identify ways to make it easier and more effective to apply.

While Studies 1 and 2 used relatively large and representative samples, they only examined one Western European country. Some research suggests that trust operates somewhat differently in different cultures (for example, Yamagishi, Cook, & Watabe, 1998). This might give practitioners from outside a Western European context an extra reason to check their assumptions when applying the consulting model outside of the situation for which it was developed. It also means that researchers may wish to test the model of trust-building holds elsewhere in the world. Of particular interest might be the specific heuristic that leads to trust judgements under Type 1 processing. Here, the ‘affect heuristic’ has been the key focus, but one could imagine other societies where alternative heuristics, for example, based on tradition and familiarity rather than liking, could play a similar role, and so produce a different pattern of results.

The research touched on three different sectors but focussed more on financial services than airlines or retail. There are, of course, many more sectors where trust is a highly relevant concern, as can hopefully be seen from the diverse illustrations of the consulting model in Chapter 4. There may be some very important sector-specific aspects to trust which this research has not identified. For example, food seems to have some particular idiosyncrasies when it comes to trust, with the trust-building power of supposedly ‘natural’ foods (Taylor & Stevenson, 2018) and the specific role of food-sharing in social bonding (Woolley &

Fishbach, 2017), perhaps regulated by a specific ‘disgust system’ (Kelly, 2011). Further research could help to establish whether the ‘trusting fast and slow’ model needs to be substantially adapted for work in specific sectors.

Study 2 only examined four of the many trust-building interventions considered in Chapter 1. There would be value in testing more of those potential interventions, as well as re-testing both the successful and unsuccessful interventions used in Study 2. Charitable donations and a track record of trusting others could both be credible signals of trustworthiness in certain contexts, while not being credible in the context tested in Study 2. Identifying the contexts where they do work would have both theoretical and practical value. Attempting to replicate the successful interventions around simplicity and competitiveness in both similar and different contexts could give greater confidence in the findings presented here, as well as potentially identifying additional boundary conditions, on top of the cognitive processes that this research has focussed on.

Further research, whether into consumer trust, interpersonal trust, or other trust relationships, could test the fundamental pattern that associates affective evaluations with Type 1 processes, and complex evidence of trustworthiness with Type 2 processes. Together with interpersonal trust research that tells a related story (for example, Evans & Krueger, 2011; Hughes et al., 2016; Lount, 2010; Murray et al., 2013), this could start to establish a role for dual-processing in many, perhaps all, trust judgements, which would have significant implications for the burgeoning multidisciplinary trust literature that tends not to address cognitive processes. As a first step, a more direct heuristic elicitation with a between-subjects design, as advocated by Kahneman and Frederick (2002), could provide further evidence of the affect heuristic at work in trust judgements.

There are also specific limits from the analysis of Study 1 and Study 2 that deserve to be mentioned here. The order effects found in Study 2 were quite substantial and were not envisaged before the analysis took place. There is a coherent explanation, as set out in Chapter 3, but it would be preferable if this was tested in a pre-registered replication. In addition, partly due to the difficulty in designing a measure of real-world trusting behaviour, Study 1 struggled to link trust with behavioural intentions, and may have underplayed the predictive power of the risk-based trust measure by only using an expressive measure of behavioural intentions. If the risk-based measurement approach is to become a key part of all consumer trust measurement, it needs to be able to show a link between behaviour in the measure and behaviour in day-to-day commercial transactions. However, any researcher wishing to test this link will need to consider the role of different cognitive processes in these day-to-day transactions, as well as the range of factors beyond trust which might influence them. For example, in purchasing a new car, trust in the brand might be one predictor, but income is likely to also play an important role. And in purchases that involve almost no prospect of Type 2 processing, such as ‘tapping in’ to a train station during my daily commute, we should not expect trust to be at all predictive of behaviour.

Study 1 and 2 also do not give us complete clarity on the role of liking, familiarity, and cognitive skills as predictors of Type 2 processing of trust judgements and would benefit from more specific research. There is some suggestion in Study 1 that disliked brands prompted a reduced reliance on the affect heuristic, but there isn’t evidence that dislike of the unnamed brand in Study 2 had the same effect. A dedicated examination, potentially where liking is manipulated rather than trust, could provide useful guidance for practitioners working with unloved brands. Consistent with the suggestion that novelty prompts Type 2

processing, Study 1 found that unfamiliar brands were less likely to be judged in a way consistent with the affect heuristic. However, removing the name of the brand in Study 2 did not seem to exacerbate this. A more focussed examination, comparing established brands with new entrants, could help give greater guidance to practitioners working with either type of company. Finally, while the link between cognitive abilities and Type 2 processing is the subject of much research (Evans & Stanovich, 2013), the specific question about consumer trust has not been explored. In Study 1, there was no suggestion that participants of any level of education used Type 2 processing more; however, it might be that different cognitive abilities come into play more when dealing with particularly complex products, such as pensions and investments. As researchers look at interpersonal differences in Type 2 processing, practitioners may particularly value those studies which examine these questions in a consumer trust context.

Applications

Looking at the business environment today, trust provides a single lens that can be applied to very different questions, from product performance, to branding, to corporate reputation, corporate citizenship and social responsibility. The need to persuade uncertain consumers to take a risk on your products has been seen as a vital part of business success at least since the rise of information economics, starting in the 1970s with authors like Akerlof (1970). Today, businesses are increasingly asked questions by consumers about their corporate policies – which might run from sustainability (Atkinson & Rosenthal, 2014) to privacy (Aguirre et al., 2015; Bart et al., 2005) to safety during the Coronavirus pandemic – and consumer behaviour may depend on whether they believe the answers they are offered. If new technologies are driven, sometimes literally, by artificial intelligence, this will make it harder for consumers to

‘see under the bonnet’ – and therefore they will be more reliant on trust (Botsman, 2017).

More broadly, the increasing complexity of products, services, supply chains and the criteria on which companies are assessed are likely to make consumer trust ever more important both for the success of individual companies and also the smooth functioning of the economy and society. The use of trust as a conceptual approach, including performance risk and relational risk, helps to give practitioners and academics a unified view of these different issues, enabling them to focus on where trust most needs to be built.

However, the model of trust-building presented here suggests that trust can easily be misunderstood by businesses. Some worry about a crisis of trust in business as a whole (for example, Sucher & Gupta, 2019), but the work here shows the importance of distinguishing liking from trusting. In this model it might be possible, at the extreme, for many businesses to become highly disliked, and for this to be seen as distrust in standard surveys, but for consumers to *behave* quite differently, particularly if they face novel or high stakes interactions. Equally, some of the companies that pride themselves on being a highly trusted brand might discover that they actually have a well-liked product, and that consumers are sceptical when they make promises that go beyond product quality and into, for example, claims about their environmental sustainability.

The opportunity that comes from this way of thinking will be different for different firms. Some may simply need to catch up on trust, while others might seek sustained competitive advantage from being seen as more trustworthy than others (Barney & Hansen, 1994). The consulting model presented here, and the model of trust-building that it is informed by, should provide a starting point that makes it more likely that trust-building interventions will be successful. Many of the potential interventions to increase consumer trust could consume

substantial resources for a business, whether in terms of external marketing costs or changes to internal processes. The measurement tool developed here is relatively low cost, and the consulting model is a simple way to help businesses to avoid expensive mistakes.

This research may also have interesting implications beyond the kind of consumer interactions that have been the focus of this paper. Businesses are not the only organisations that face questions of trust. Yet questions about trust in political institutions (Inglehart & Norris, 2016; OECD, 2017a), charities (Lalak & Harrison-Byrne, 2019; Liang, Wu, & Huang, 2019) or technologies like vaccination (Larson et al., 2018), nuclear power (Slovic, Flynn, & Layman, 1991), or genetics (Siegrist, 2000) are often considered at a society-wide level. For practitioners in those sectors, that may not be the level on which they can take action. Instead, a consulting model aimed at asking what a single organisation can do to increase trust might be a powerful addition. Individual charities, individual political institutions or single-issue campaigns might benefit from practical consultancy that takes an organisation-level approach.

In particular, trust in public health authorities is expected to be critical to the response to Coronavirus (Devine et al., 2020). In the case of vaccination, Larson and colleagues (2018) suggest that trust in vaccination can be dependent on beliefs about the incentives of health care professionals, which we might consider to involve complex inferences about the future behaviour of trustees, but Cummings (2014) argues that public health practitioners should use heuristic reasoning to persuade people to comply with complex medical advice. Similarly, Rehman and colleagues (2005) advocate that all physicians should wear formal dress and a white coat because this is chosen as the most trustworthy option in an expressive trust task. The suggestion from this work is that the result might be much weaker in a risk-based trust

measure where participants made incentivised gambles on the credibility of formally or informally dressed doctors. Taking this further, the medical setting offers many moments where the stakes are high for patients, but also where they might be fatigued. The ‘trusting fast and slow’ approach would predict that a white coat, or any other heuristic-based intervention, would be more effective with patients who are experiencing pain and other distracting symptoms, but would have little effect on an undistracted patient’s decision whether to undergo a high-risk surgical procedure. The consulting model outlined in Chapter Four raises some interesting questions for researchers and practitioners wrestling with this problem in a specific set of local circumstances: looking at the key moments for patients, deciding which type of processing is likely to be undertaken, and fitting the design of public health information campaigns to be congruent with those cognitive processes.

The tool for risk-based trust measurement may also have wider applicability. It allows risk-based trust measurement to focus on leaders and organisations, rather than just peers. This obviously need not be restricted to private sector organisations and could add a new methodology to the well-developed literature on measuring trust in institutions (for example, Fungacova, Hasan, & Weill, 2017; OECD, 2017b). It could also be an additional tool for scholars looking at trust within teams and workplaces (for example, Colquitt et al., 2011; Jones & George, 1998) or between organisations (for example, Bottazzi, Da Rin, & Hellmann, 2016; Moorman, Deshpandé, & Zaltman, 1993). Questions of trust from potential employees (Pirson & Malhotra, 2011; Pirson, Martin, & Parmar, 2017) might be a particularly interesting area to deploy an approach like the risk-based trust tool developed here, as potential employees might be expected to use one level of cognitive processing when searching for a job, and another when deciding whether or not to accept one. Expressive measures of trust in government often correlate with simple measures of economic

satisfaction and job approval for political leaders (Uslaner, 2014). If some voters use Type 2 processing to make their final decision in the voting booth, a risk-based tool might also help to identify and predict that trusting behaviour better than standard expressive measures. As the tool is rolled out to new areas, within and beyond the commercial sphere, there is also the opportunity to remove the small element of deception used in both studies.

The assumption underlying all this work has been that companies will generally wish to be trusted, and there are few circumstances where they might worry about being too successful and trusted to an excessive degree. We could imagine some kind of moral hazard when a car company that produces such a strong and safe car that its drivers proceed to simply trust in the car's superior manufacturing, rather than watching out for other traffic. Nevertheless, if the company is keen to limit such behaviour and advises against it, then this advice must be trusted or distrusted. If a driver continues to act recklessly, we might say that they have high trust in the safety measures, but low trust in the advice. That such a convoluted example doesn't escape the need to increase trust might suggest that companies have little reason to worry about achieving too high a level of trust. More plausibly, a firm might over-invest in a strategy to create trust, beyond its potential to benefit the business (Wicks, Berman, & Jones, 1999). However, there is no obvious reason to think this is a greater risk than under-investing in consumer trust-building strategies.

More importantly, throughout this work it has been assumed that it is legitimate for an organisation to want to increase the trust people have in it. While excessive distrust can sometimes be seen as a moral flaw (Flores & Solomon, 1998, c.f. Bicchieri, Xiao, & Muldoon, 2011), there is a suggestion, grounded in research into social trust, that greater trust is, overall, welfare enhancing for societies (Algan & Cahuc, 2010; Zak & Knack, 2001) and

individuals (Guiso, Sapienza, & Zingales, 2004; Slemrod & Katuscak, 2005). But, in specific interactions, trust can, of course, be misplaced and enable unethical behaviour (Yip & Schweitzer, 2015). Trust in online misinformation is now a widespread concern (Pennycook & Rand, 2019a, 2019b), excessive trust might lead to ineffective regulation (Bachmann & Hanappi-Egger, 2014) and trust in “fake experts” has been identified as a key part of “denialism” of science on climate change and other important topics (Diethelm & McKee, 2009, p.2). Those who we need to trust most can have the most power to betray that trust: in one of the most grim examples, Alsan and Wanamaker (2017) show how African-American men are less likely to trust medical professionals today, and how this affects their life chances. The authors are able to identify a significant cause of this disparity using econometric techniques: the exposure, in 1972, of the Tuskegee Study, where hundreds of African-American men were lied to and left deliberately untreated for syphilis by the Alabama health authorities. The case shows that there are serious risks when people trust the untrustworthy, as in 1972. But it also shows that there are serious risks from lack of trust too, with people now missing out on beneficial treatment because of lingering worries about medical practitioners.

The consulting model set out in Chapter Four could, of course, be used to the advantage of an organisation that does not deserve to be more trusted: for example, by someone seeking to commit a fraud. If we think of Type 1 processing and heuristic, trust-building interventions, the normative risk comes if people’s heuristics are badly adapted to the environment they face. For example, the heuristic ‘trust a business if it has a good-looking website’ (as seen in Schlosser, Barnett White, & Lloyd, 2006) might have been adaptive at a point when web design was a credible signal of investment and resources, but might be misleading in an era when a professional looking website can be thrown together with little effort. Policymakers

can try to design-in adaptive heuristics, for example through a ‘kitemark’ approach. While Type 2 processing may not perfectly identify those who are trustworthy and those who aren’t, it is hard to think of a superior alternative. Encouraging customers to use Type 2 processes in trust judgements, while demanding something from them in terms of cognitive resources, seems like it will generally be to the customer’s benefit. Indeed, encouraging Type 2 processing might, by itself, even be a credible signal that the company is not seeking to ‘get one over’ on its customers.

The reverse, where customers are using Type 2 processing but are encouraged to use Type 1 processing, is likely to be harder to achieve and is not advocated in the model in Chapter Four. Nevertheless, it is conceivable, and worrying, to think of any company lulling an otherwise alert customer into not reflecting on what they are doing (Yip & Schweitzer, 2015). There is some reassurance in the idea that, as in Petty and Cacioppo’s (1986) work, such quick judgements tend to be shorter lived and have a weaker effect on behaviour. In these situations, the ‘trusting fast and slow’ model would suggest that regulations such as ‘cooling off periods’ might help reduce the harm caused when people are encouraged to temporarily use heuristic processing and make bad trust decisions as a result. For all of us as consumers, the model suggests we should be wary of any business that tries to make us come to important trust judgements too quickly.

Ultimately, increasing our understanding of trust cannot make people or organisations more trustworthy. Businesses that want to abuse trust may be able to, while many other businesses may be undeservedly distrusted, both of which might harm the interests of consumers. The model presented here offers a route map for those businesses who want to be more trusted. In completing that journey, the businesses that are, in fact, more trustworthy may have an

advantage, at least to the extent that consumers are concentrating on the evidence of trustworthiness or applying heuristics that are adaptive for the world they live in. But, as Pettit (1995, p.216) argues, the “cunning of trust” is that the desire to be thought trustworthy can itself encourage us towards more ethical behaviour. A world where businesses worry about trust and do all they can to maximise it might be considerably more desirable than one where businesses are content to be thought untrustworthy.

Closing Remarks

Lewin’s (1943) maxim “there is nothing as practical as a good theory” is something of a commonplace observation in social sciences today (McCain, 2016). This project has aimed to achieve a practical contribution, in part, by also making advances in our theoretical understanding of consumer trust. To an extent, the practical outputs can stand alone. The risk-based measure of trust has been shown to provide additional practitioner insight, as described in Chapter 2. The simplicity and competition-based interventions have been shown to increase trust in a practitioner context, as described in Chapter 3.

The consulting model that ties the findings together has not been proven in practice. However, in the case of something as amorphous as a consulting model, we might be sceptical about what that proof could constitute. It necessarily has plenty of room for idiosyncratic circumstances and practitioner judgement, meaning that, unless it was adopted at some widespread scale, it is hard to see how we might prove or falsify a claim that the model ‘works’.

Instead, this project aims to give practitioners confidence in a better practical model by offering a more convincing theory. The evidence from Studies 1 and 2 suggests that consumers form trust judgements using two different cognitive processes. The model of consumer trust-building that is proposed here has a degree of precision that is not always seen in writing about consumer trust, and points towards testable propositions that researchers can continue to develop, test, and build on. It is consistent with the latest research on interpersonal trust (such as Evans & Krueger, 2016).

The structure of the consulting model aims to flow naturally from the theoretical model of consumer-trust building. The successful interventions and the new approach to measurement then fit within the same cohesive framework. So the credibility of the consulting model comes down to the credibility of the evidence provided in Study 1 and 2, within a wider body of research on dual process models of cognition and bounded rationality in trust judgements. However, a deep understanding of this evidence is not a pre-requisite for making use of the consulting model offered here - practitioners can, if they wish, decide to take it on trust.

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APPENDIX 1: STUDY 1 QUESTIONNAIRE

Text seen by participants is presented in italics.

STANDARD RESPONDI INTRODUCTION AND DEMOGRAPHICS

INTRODUCTION.

Dear participant,

Today we'd like to invite you to take part in a new survey.

The questionnaire will take up approx. 10 minutes of your time.

You will receive 50 mingle points for this survey.

If this time your profile does not match the participants needed for this survey, you will receive 5 mingle points [a nominal amount in the currency used to reward participants on the Respondi survey platform].

We assure you that all answers will be treated anonymously and confidentially.

Your statements will be solely used for statistical and analytical purposes.

Enjoy the survey!

A1. What is your gender?

Female

Male

Other

A2. What is your age?

X years [EXCLUDE ALL <18]

A3. Where do you live?

North East

North West

Yorkshire and The Humber

East Midlands

West Midlands

East

London

South East

South West

Wales

Scotland

Northern Ireland

I currently live outside the UK (close).

RANDOMISATION AND RECRUITMENT

Randomisation for all participants into one of three SECTORS, labelled AIRLINE, FS, and RETAIL

Followed by a randomisation of all participants in each SECTOR to a specific BUSINESS.

- For all with SECTOR=AIRLINE, randomise between three BUSINESSES: British Airways, Ryanair, Emirates
- For all with SECTOR=FS, randomise between three BUSINESSES: Nationwide; JP Morgan; Virgin Money
- For all with SECTOR=RETAIL, randomise between three BUSINESSES: Amazon, John Lewis, Carphone Warehouse

INTRODUCTION AND INITIAL QUESTIONS ON POSITIVITY AND FAMILIARITY

Introduction text:

You will now be asked some questions about different companies as part of some research conducted by Teneo Blue Rubicon and Warwick Business School. For the first question, you just need to say if you feel positive or negative towards the company but you should make the choice as quickly as you can. Click next when you are ready.

Q1. How do you feel towards BUSINESS?

*Positive
Neutral
Negative*

Time all responses.

Q2. How familiar or unfamiliar is BUSINESS to you?

Very unfamiliar, somewhat unfamiliar, somewhat familiar, very familiar.

Q3. Have you bought or used products or services from BUSINESS in the last year?

Yes, No.

Randomise the order of the following three sections QA, QB, QC.

SECTION QA - GAMBLES

Instructions p1:

The next six questions are an opportunity to make some extra mingle points.

In one year's time, we will randomly choose one of the mingle members and look at how they answered these six questions. We will then see what has happened over the year, because the number of points they win depends on what happens in the world over the next 12 months.

With each question, there's an opportunity to earn up to 6,000 mingle points: so in total over the next few questions you could 36,000 points - worth over £280 - if you are the randomly chosen mingle member.

[Click next. Record all participants who reach this point and enter all participants, even non-completes, into the free prize draw - see below]

NEXT PAGE

Instructions p2:

For each of the next questions, you start off with 4,000 points. You can choose to keep all 4,000 points if you want.

Alternatively, you can put some of the points into a special account. This special account pays out 50 per cent extra on top of what you put into it. That means you can grow your 4,000 points to up to 6,000 points.

However, there is a risk to putting points into the special account. Points in the special account disappear if a particular event happens in the real world over the next year. These events are different for each different question. In a year's time, we will look at which events really happened and work out how many points have been won.

If you are the randomly chosen mingle member, in a year's time, you could earn up to 36,000 mingle points - worth over £280 - if you make the right choices now.

[Click next]

Randomise the order of the following questions.

QA1 ALL COMPANY ABILITY.

This choice is about BUSINESS. The special account pays out 50 per cent more on top of what you put into it. But you will lose the points you put in the special account if, at any time in the next year, BUSINESS has a major IT problem that causes serious disruption to its business for at least 24 hours.

Please choose one of the following:

- o Put nothing in the special account and keep all 4,000 points*
- o Put 1,000 points in the special account and keep 3,000 points*
- o Put 2,000 points in the special account and keep 2,000 points*
- o Put 3,000 points in the special account and keep 1,000 points*
- o Put all 4,000 points in the special account and keep nothing*

QA2 ALL COMPANY BENEVOLENCE. Identical to the question above but replace underlined text with receives the lowest ratings for customer service in a survey of different companies in its sector.

QA3 ALL COMPANY INTEGRITY. Identical to the question above but replace underlined text with is forced to withdraw an advert because the Advertising Standards Authority rules it is misleading

QA4 SECTOR-SPECIFIC ABILITY. Identical to the question above but replace underlined text with a new piece of text depending on SECTOR:

IF SECTOR=AIRLINE THEN has a major increase in the number of delayed and cancelled flights

IF SECTOR=FS THEN loses the personal financial data of a large number of customers

IF SECTOR=RETAIL THEN repeatedly runs out of stock for over a month on some of its most popular products.

QA5 SECTOR-SPECIFIC BENEVOLENCE. Identical to the question above but replace underlined text with a new piece of text depending on SECTOR:

IF SECTOR=AIRLINE THEN is criticised by consumer groups for having very high fares during peak periods like school holidays

IF SECTOR=FS THEN is criticised by consumer groups for not explaining fees and charges clearly in all their communications with customers

IF SECTOR=RETAIL THEN is criticised by consumer groups for having a difficult process for customers to return product.

QA6 SECTOR-SPECIFIC INTEGRITY. Identical to the question above but replace underlined text with a new piece of text depending on SECTOR:

IF SECTOR=AIRLINE THEN decides to break an agreement on pay, pensions or working hours it has recently made with its pilots

IF SECTOR=FS THEN awards its top management team large cash bonuses even when the company has performed poorly

IF SECTOR=RETAIL THEN decides to break an agreement on pay, pensions or working hours it has recently made with its staff.

SECTION QB - ATTITUDES TO TARGET BUSINESS

Thinking about BUSINESS, how far do you agree or disagree with the following statements?
Please use a scale of 1 to 5, where 1 is strongly disagree and 5 is strongly agree.

Grid columns with 1-5 scale.

Grid rows with the following statements displayed in a random order.

This company appears to be successful at the things it tries to do

I feel very confident about this company's skills and abilities

It doesn't seem this company would knowingly do anything to hurt me

This company seems to really look out for what is important to people like me

This company seems to try hard to be fair in dealings with others

Sound principles seem to guide this company's behaviour

SECTION QC - BEHAVIOURAL INTENTIONS TOWARDS TARGET BUSINESS

Thinking about BUSINESS, do you agree or disagree with the following statements?

Grid columns with AGREE, DISAGREE, DON'T KNOW scale

Grid rows with the following statements displayed in a random order.

If I was looking for the kind of products and services they sell, this is a company I would consider

I would support campaigns to impose strict new regulations and taxes on this company

I would be pleased if a friend or family member started to work for this company

I would be pleased if a friend or family member invested in this company's shares

FINAL SECTION - ALL BUSINESS TRUST MEASURES

Randomise the order of the following questions: Q4.1, Q4.2, Q4.3.

Q4.1. On a scale of 1 to 5, where 1 is strongly disagree and 5 is strongly agree, how far do you agree or disagree with the following statement when you think about these different companies: This company delivers what it promises.

Grid columns showing 1-5 scale.

Grid rows with all the company names displayed in a random order: *British Airways, Ryanair, Emirates; Nationwide; JP Morgan; Virgin Money; Amazon, John Lewis, Carphone Warehouse.*

Q4.2. On a scale of 1 to 5, where 1 is strongly disagree and 5 is strongly agree, how far do you agree or disagree with the following statement when you think about these different companies: This company's product claims are believable.

Grid columns showing 1-5 scale.

Grid rows with all the company names displayed in a random order: *British Airways, Ryanair, Emirates; Nationwide; JP Morgan; Virgin Money; Amazon, John Lewis, Carphone Warehouse.*

Q4.3. On a scale of 1 to 5, where 1 is strongly disagree and 5 is strongly agree, how far do you agree or disagree with the following statement when you think about these different companies: This company has a name you can trust.

Grid columns showing 1-5 scale.

Grid rows with all the company names displayed in a random order: *British Airways, Ryanair, Emirates; Nationwide; JP Morgan; Virgin Money; Amazon, John Lewis, Carphone Warehouse.*

ADDITIONAL RESPONDI DEMOGRAPHICS

You are almost done. To conclude, we would like to learn a little more about you as a person.

What is your highest level of education?

No formal education or qualifications (yet)

GCSEs or equivalent

GNVQs or equivalent

A levels / AS levels / Scottish Highers / NVQ levels / Int. Baccalaureate

Professional Qualification

Undergraduate degree or equivalent

Postgraduate degree or equivalent

What is your gross annual household income (before deductions)?

Less than £15,000

£15,000 to £24,999

£25,000 to £34,999

£35,000 to £44,999

£45,000 to £54,999
£55,000 to £64,999
£65,000 to £74,999
£75,000 to £84,999
£85,000 to £94,999
£95,000 to £124,999
£125,000 to £199,999
£200,000 or more
Prefer not to say

DEBRIEFING

For all participants except the winner of the free prize draw: *Thank you for participating in this research. It was designed to look at how people's trust in different companies varies depending on the format of the question that a researcher uses. The research will allow researchers at Warwick Business School and Teneo Blue Rubicon to better understand what makes different companies more or less trusted. This will then allow companies to better understand why people do or do not trust them, and what they can do to improve the situation. It should be noted that as far as the researchers are aware, none of the events conceived of in this survey have occurred, and the researchers have no reason to expect them to happen in the future. If you have any questions about the project, please contact [REDACTED].*

For the winner of the free prize draw, show the above text and then add:

Of all the people who took part, you have been randomly chosen to have your choices played out in full. However, because this is the first time we have run this survey, we have decided to simply pay you the maximum winnings of 36,000 mingle points now instead of waiting a year and seeing which events occurred or not. In future surveys, we have no expectation that we will use this approach again. An extra 36,000 mingle points will be credited automatically to your account.

APPENDIX 2: STUDY 1 ADDITIONAL MATERIAL

Table A1. Positive bias in expressive trust when a company is the target in Study 1

	<i>Mean expressive trust when not target (5 point scale)</i>	<i>Mean expressive trust when target (5 point scale)</i>	<i>Uncorrected p value for Welch Two Sample t-test</i>
British Airways	3.501	3.728	<.001
Emirates	3.601	3.688	.151
Ryanair	2.366	2.771	<.001
JP Morgan	3.026	3.310	<.001
Nationwide	3.718	3.781	.333
Virgin Money	3.240	3.464	<.001
Amazon	3.731	3.962	<.001
Carphone Warehouse	3.125	3.372	<.001
John Lewis	3.843	3.981	.018

Table A2. Pairwise comparisons between trust in different companies using the whole dataset in Study 1

P values, using Holm's (1979) correction, for both the commonly used measure of expressive trust (in *italics*) and the risk-based measure of trust (in **bold**) where significant.

	British Airways	Emirates	Ryanair	JP Morgan	Nationwide	Virgin Money	Amazon	Carphone Warehouse	John Lewis
Emirates									
Ryanair	<i><.001</i> .008	<i><.001</i> <.001							
JP Morgan	<i><.001</i>	<i><.001</i>	<i><.001</i> .010						
Nationwide			<i><.001</i> <.001	<i><.001</i>					
Virgin Money	<i>.022</i>		<i><.001</i> <.001		<i>.003</i>				
Amazon		<i>.016</i>	<i><.001</i> .026	<i><.001</i>		<i><.001</i>			
Carphone Warehouse	<i><.001</i>	<i>.003</i>	<i><.001</i>		<i><.001</i> 0.002	0.014	<i><.001</i>		
John Lewis	<i>.031</i>	<i>.009</i>	<i><.001</i> <.001	<i><.001</i>		<i><.001</i>		<i><.001</i>	

Table A3. More detailed summary of Study 1 findings by company

Means (and standard deviations) except where stated.

	British Airways	Emirates	Ryanair	JP Morgan	Nationwide	Virgin Money	Amazon	Carphone Warehouse	John Lewis
n*	230	222	230	211	227	230	234	231	227
Positivity (Scale 1, 0, -1)	0.37 (0.62)	0.26 (0.56)	-0.21 (0.69)	0.01 (0.40)	0.39 (0.53)	0.12 (0.54)	0.61 (0.58)	0.12 (0.58)	0.44 (0.63)
Familiarity (4 point scale)	2.92 (0.80)	2.48 (0.90)	2.91 (0.88)	2.03 (0.91)	2.85 (0.88)	2.25 (0.95)	3.59 (0.58)	2.91 (0.79)	3.05 (0.88)
Expressive measure of trust (5 point scale)	3.73 (0.84)	3.69 (0.85)	2.77 (1.15)	3.31 (0.82)	3.78 (0.92)	3.46 (0.82)	3.96 (0.85)	3.37 (0.96)	3.98 (0.82)
Expressive measure of trust (Skewness)**	-0.65	-0.56	0.13	-0.06	-0.62	-0.42	-0.77	-0.40	-0.51
Expressive measure of trust (Kurtosis)**	0.64	0.68	-0.84	0.26	0.21	0.54	0.63	0.05	-0.24
Risk-based trust measure (Average transfer across six gambles, up to a maximum of £48 per gamble***)	£16.30 (£12.85)	£17.86 (£12.89)	£13.22 (£11.85)	£17.54 (£12.52)	£20.13 (£13.06)	£18.97 (£13.61)	£17.16 (£12.54)	£15.46 (£12.78)	£19.10 (£13.87)
Cross-sector risk- based ability measure** (Up to a maximum of £48)	£16.28 (£15.99)	£17.46 (£15.25)	£13.98 (£15.49)	£17.63 (£16.57)	£16.92 (£14.56)	£18.52 (£16.84)	£16.67 (£16.63)	£13.51 (£14.75)	£16.81 (£15.93)
Sector specific risk-based ability measure* (Up to a maximum of £48)	£15.76 (£15.53)	£17.51 (£15.47)	£12.83 (£15.19)	£19.22 (£16.41)	£20.67 (£16.19)	£19.67 (£17.10)	£16.82 (£16.34)	£15.64 (£16.65)	£18.29 (£16.64)
Cross-sector risk- based benevolence measure** (Up to a maximum of £48)	£19.30 (£17.71)	£22.22 (£17.91)	£12.38 (£14.98)	£18.31 (£15.46)	£22.94 (£16.75)	£21.65 (£17.20)	£20.41 (£17.03)	£16.05 (£16.70)	£21.20 (£17.46)
Sector specific risk-based benevolence measure** (Up to a maximum of £48)	£11.37 (£14.26)	£14.16 (£14.99)	£12.37 (£14.77)	£15.87 (£15.36)	£19.72 (£16.90)	£17.32 (£16.61)	£15.69 (£16.45)	£14.13 (£15.38)	£17.87 (£16.87)
Cross-sector risk- based integrity measure** (Up to a maximum of £48)	£19.93 (£17.65)	£18.86 (£16.11)	£14.19 (£15.83)	£19.56 (£16.63)	£22.84 (£17.38)	£20.19 (£16.89)	£16.97 (£15.62)	£17.14 (£16.83)	£20.78 (£18.00)

Sector specific risk-based integrity measure** (Up to a maximum of £48)	£15.18 (£15.99)	£16.97 (£16.62)	£13.10 (£15.11)	£14.62 (£14.90)	£17.71 (£16.94)	£16.43 (£17.07)	£16.41 (£17.16)	£16.31 (£16.92)	£16.67 (£17.16)
Risk-based measure of trust (Skewness)**	-0.65	-0.56	0.13	0.37	0.23	0.5	0.51	0.57	0.25
Risk-based measure of trust (Kurtosis)**	0.64	0.68	-0.84	-0.59	-0.81	-0.63	-0.48	-0.55	-0.87
Percentage not transferring anything on all six risk exercises*	16%	11%	21%	14%	10%	10%	12%	17%	15%
*Following exclusions applied as described above ** Using normalised data for each sector as described above *** Experimental currency of ‘mingle points’ is converted to GBP at a 1,000 points to £8 ratio. Note that sector-specific risks are not comparable across different sectors, as shaded above.									

Table A4. Detailed description of regressions testing H1.2
Significant (p<.05) predictors in bold.

	Airlines (n=520)			Financial services (n=465)			Retail (n=545)		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Intercept	$\beta=0.635$, $p=.011$	$\beta=0.793$, $p=.004$	$\beta=0.651$, $p=.010$	$\beta=1.229$, $p<.001$	$\beta=1.323$, $p<.001$	$\beta=1.261$, $p<.001$	$\beta=0.659$, $p=.002$	$\beta=0.664$, $p=.002$	$\beta=0.670$, $p=.001$
Expressive trust	$\beta=0.209$, $p<.001$	-	$\beta=0.207$, $p<.001$	$\beta=0.185$, $p<.001$	-	$\beta=0.170$, $p<.001$	$\beta=0.129$, $p<.001$	-	$\beta=0.124$, $p<.001$
Risk-based trust	-	$\beta=0.041$, $p=.026$	$\beta=0.008$, $p=.633$	-	$\beta=0.089$, $p<.001$	$\beta=0.047$, $p=.009$	-	$\beta=0.044$, $p=.004$	$\beta=0.025$, $p=.093$
Positivity	$\beta=0.148$, $p<.001$	$\beta=0.336$, $p<.001$	$\beta=0.147$, $p<.001$	$\beta=0.056$, $p=.079$	$\beta=0.176$, $p<.001$	$\beta=0.059$, $p=.063$	$\beta=0.130$, $p<.001$	$\beta=0.210$, $p<.001$	$\beta=0.127$, $p<.001$
Familiarity	$\beta=-0.013$, $p=.491$	$\beta=-0.043$, $p=.036$	$\beta=-0.013$, $p=.498$	$\beta=0.009$, $p=.604$	$\beta=0.026$, $p=.192$	$\beta=0.009$, $p=.601$	$\beta=0.014$, $p=.438$	$\beta=0.027$, $p=.164$	$\beta=0.014$, $p=.450$
Customer status	$\beta=0.018$, $p=.595$	$\beta=0.006$, $p=.866$	$\beta=0.018$, $p=.604$	$\beta=-0.075$, $p=.062$	$\beta=-0.066$, $p=.125$	$\beta=-0.068$, $p=.088$	$\beta=-0.001$, $p=.959$	$\beta=0.013$, $p=.658$	$\beta=0.002$, $p=.950$
Trust propensity	$\beta=-0.057$, $p<.001$	$\beta=-0.004$, $p=.794$	$\beta=-0.057$, $p<.001$	$\beta=-0.025$, $p=.113$	$\beta=0.039$, $p=.010$	$\beta=-0.018$, $p=.241$	$\beta=0.010$, $p=.419$	$\beta=0.047$, $p<.001$	$\beta=0.011$, $p=.364$
Female	$\beta=0.030$, $p=.256$	$\beta=0.026$, $p=.377$	$\beta=0.032$, $p=.232$	$\beta=0.018$, $p=.523$	$\beta=0.029$, $p=.324$	$\beta=0.028$, $p=.318$	$\beta=0.014$, $p=.530$	$\beta=0.030$, $p=.216$	$\beta=0.021$, $p=.366$
Income	$\beta=0.012$, $p=.662$	$\beta=0.002$, $p=.942$	$\beta=0.009$, $p=.716$	$\beta=-0.043$, $p=.070$	$\beta=-0.058$, $p=.022$	$\beta=-0.047$, $p=.047$	$\beta=0.007$, $p=.741$	$\beta=-0.002$, $p=.921$	$\beta=0.005$, $p=.793$
F	65.27 (7, 512) $p<.001$	41.31 (7, 512) $p<.001$	57.05 (8, 511) $p<.001$	25.55 (7, 457) $p<.001$	14.48 (7, 457) $p<.001$	23.5 (8, 456) $p<.001$	40.18 (7, 537) $p<.001$	30.81 (7, 537) $p<.001$	35.63 (8, 536) $p<.001$
R ²	0.472	0.361	0.472	0.281	0.182	0.292	0.344	0.287	0.347

Durbin-Watson	1.884 <i>p</i> = .182	1.911 <i>p</i> = .304	1.878 <i>p</i> = .16	2.064 <i>p</i> = .50	1.998 <i>p</i> = .948	2.031 <i>p</i> = .776	1.975 <i>p</i> = .68	2.006 <i>p</i> = .994	1.988 <i>p</i> = .916
Mean VIF	1.455	1.149	1.435	1.438	1.250	1.431	1.477	1.266	1.449
AIC	210.606	309.416	212.374	177.245	237.701	172.294	90.699	136.250	89.831
<p>In each model, the following controls are used:</p> <ul style="list-style-type: none"> - <u>Positivity</u> towards the target company on a -1, 0, 1 scale. - An individual's overall <u>propensity to trust</u> companies can differ (e.g. Colquitt, Scott, & LePine, 2007; Gill, Boies, Finegan & McNally, 2005) and predict their likelihood to trust specific businesses (Pirson, Martin, & Parmar, 2014). A control variable for this is calculated by taking the average expressive trust rating that an individual gives to the eight non-target companies they are asked about. This is normalised against the average propensity to trust for participants in each subset of data related to a particular sector. - <u>Familiarity</u> and <u>customer status</u> - my experience is likely to have a direct effect on trust due to experience of trustworthy or untrustworthy behaviour (e.g. Garbarino & Johnson, 1999; Chua, Morris & Ingram, 2009; Fetchenhauer & Dunning, 2010). Familiarity is a single-item, on a four-point scale, normalised for the sector. Customer-status is a binary variable. - A number of previous studies suggest that <u>gender</u> is a predictor of trust (e.g. Haselhun, Kennedy, Kray, Van Zant, & Schweitzer, 2015; Fungacova, Hasan, & Weill, 2017). - Some previous studies suggest that <u>income</u> is a predictor of trust (Slemrod & Katuscak, 2005; Fungacova, Hasan, & Weill, 2017). 245 participants declined to provide their income and are excluded³⁹. Income was recorded using brackets as shown in the survey full text (Appendix 1), midpoints in each bracket were used, except for the lowest and highest points on the scale which were set at £15,000 and £225,000 respectively. All income figures were then log transformed. 									

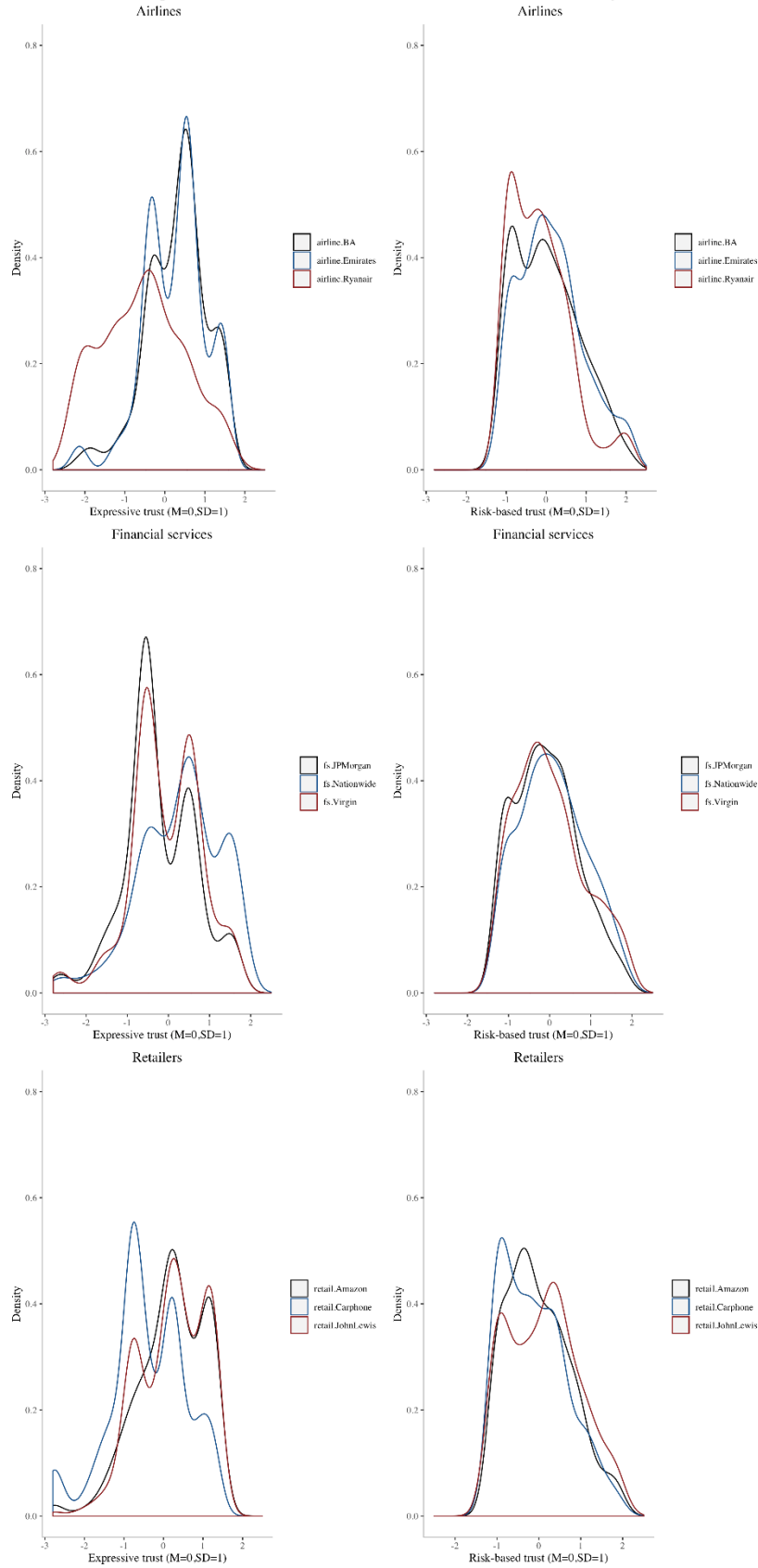
³⁹ The exercise was repeated with these data points replaced with the national average of £43,645 from UK National statistics (ONS, 2018). The insights were the same as when these participants were excluded, as reported in Table 7.

Table A5. Correlation coefficients ($r=.$) between different measures of trust aspects in Study 1: ability (A), benevolence (B), and integrity (I)

Where the correlation is between the same aspect, it is highlighted in grey. Where the correlation is between two different aspects, it is shown in white.

		Expressive measure			Cross-sector risk-based measure			Airline-specific risk-based measure			FS-specific risk-based measure			Retail-specific risk-based measure		
		A	B	I	A	B	I	A	B	I	A	B	I	A	B	I
Expressive measure	A		.76	.71	.18	.23	.23	.21	.15	.26	.23	.19	.15	.21	.17	.19
	B	.76		.77	.18	.22	.23	.16	.12	.24	.25	.24	.21	.23	.21	.22
	I	.71	.77		.13	.18	.19	.18	.14	.25	.20	.20	.17	.19	.19	.19
Cross-sector risk-based measure	A	.18	.18	.13		.53	.60	.58	.50	.56	.64	.59	.47	.51	.54	.52
	B	.23	.22	.18	.53		.62	.56	.50	.56	.61	.57	.46	.55	.57	.61
	I	.23	.23	.19	.60	.62		.55	.50	.59	.65	.58	.46	.50	.55	.57
Airline-specific risk-based measure	A	.21	.16	.18	.58	.56	.55		.56	.57	No comparison possible					
	B	.15	.12	.14	.50	.50	.50	.56		.49						
	I	.26	.24	.25	.56	.51	.59	.57	.49							
FS-specific risk-based measure	A	.23	.25	.20	.64	.61	.65	No comparison possible				.58	.47	No comparison possible		
	B	.19	.24	.20	.59	.57	.58				.58		.51			
	I	.15	.21	.17	.47	.46	.47				.47	.51				
Retail-specific risk-based measure	A	.21	.23	.19	.51	.55	.50	No comparison possible			No comparison possible				.51	.57
	B	.17	.21	.19	.54	.57	.55							.51		.55
	I	.19	.22	.19	.52	.61	.57							.57	.55	

Figure A1. Distributions of two different measures of trust in Study 1



APPENDIX 3: STUDY 2 QUESTIONNAIRE

Text seen by participants is presented in italics.

STANDARD RESPONDI INTRODUCTION AND DEMOGRAPHICS

INTRODUCTION.

Dear participant,

Today we'd like to invite you to take part in a new survey.

The questionnaire will take up approx. 10 minutes of your time.

You will receive 50 mingle points for this survey.

If this time your profile does not match the participants needed for this survey, you will receive 5 mingle points [a nominal amount in the currency used to reward participants on the Respondi survey platform].

We assure you that all answers will be treated anonymously and confidentially.

Your statements will be solely used for statistical and analytical purposes.

Enjoy the survey!

A1. *What is your gender?*

Female

Male

Other

A2. *What is your age?*

X years [EXCLUDE ALL <18]

A3. *Where do you live?*

North East

North West

Yorkshire and The Humber

East Midlands

West Midlands

East

London

South East

South West

Wales

Scotland

Northern Ireland

I currently live outside the UK (close).

Randomly allocate participants into one of five GROUPS labelled:

CONTROL
DONATION
TRUST-OTHERS
COMPETITION
SIMPLICITY
STIMULUS

Introduction text:

You will now be shown a description of a fairly well-known company and then asked some questions about it. The company will not be named and some small details have been changed. This means that you will have to rely on what is in the description and what you know about companies in this sector in general.

Text varies depending on group:

CONTROL:

This company is often called a “challenger bank” because they aim to work differently from the big banks in the UK today. They were founded in 2016 and they focus on using technology to improve the experience for customers. They have a highly rated app and no high street branches. They now have over 400 employees in their UK headquarters and around a million customers.

DONATION:

As control + the following text:

One thing that makes this company unusual is that they have pledged to donate one per cent of all their profits to charity.

TRUST OTHERS

As control + the following text:

More than other banks, this company encourages its staff to use their own judgement to make the right decisions for customers. It also offers its employees an unusual amount of flexibility. Employees can arrive when suits them, work from home whenever they like, and take holiday at short notice.

COMPETITION

As control + the following text:

Today, banks have to compete for current account customers. If customers are not happy with their bank, it is now very easy for people to switch to a different bank using the Current

Account Switch Service. That means banks can only succeed by keeping their customers happy.

SIMPLICITY

As control + the following text:

This company aims to be simpler than other banks. Instead of a huge set of different offers, they just have one personal account and one business account. Instead of a complex bureaucracy, they have just two teams: the money management team and the technology team. They have also won the Clear & Simple Mark by Fairer Finance for having easy to understand terms and conditions.

SECTION A

You will now see some questions about this company. Please answer to the best of your ability, even without knowing the company's name.

QA1. How do you feel towards the company? Please use a scale of 1 to 7, where 1 is very negative and 7 is very positive.

<Time responses>

QA2. Thinking about the company that was described earlier, how far do you agree or disagree with the following statements? Please use a scale of 1 to 5, where 1 is strongly disagree and 5 is strongly agree.

Grid columns with 1-5 scale.

Grid rows with the following statements displayed in a random order.

“This company supports charities”

“This company trusts its employees.”

“This company must work hard to win and keep its customers”

“This company keeps things simple”

<Time responses>

RANDOMISE THE ORDER OF SECTIONS B AND C

SECTION B

Instructions p1:

The next six questions are an opportunity to make some extra mingle points. You could walk away with an extra £380 - or you could walk away with nothing.

In one year's time, we will randomly choose one of the mingle members and look at how they answered these six questions. We will then see what has happened to the company that was described before over the year. The number of points they win depends on how they answer and on what happens to the company.

With each question, there's an opportunity to earn up to 8,000 mingle points: so in total over the next few questions you could earn 48,000 points - worth over £380 - if you are the randomly chosen mingle member.

[Click next. Record all participants who reach this point and enter all participants, even non-completes, into the free prize draw - see below]

NEXT PAGE

Instructions p2:

For each of the next questions, you start off with 2,000 points. You can choose to keep all 2,000 points if you want.

Alternatively, you can put some of the points into a special pot. This special pot quadruples what you put into it. That means you can grow your 2,000 points to up to 8,000 points.

However, there is a risk to putting points into the special pot. Points in the pot disappear if a particular event happens in the real world over the next year. These events are different for each different question. In a year's time, we will look at which events really happened and work out how many points have been won.

If you are the randomly chosen mingle member, in a year's time, you could earn up to 48,000 mingle points - worth over £380 - if you make the right choices now.

It should be noted that as far as the researchers are aware, none of the events discussed in this survey have occurred to this company in the past, and the researchers have no specific reasons to expect them to happen in the future.

[Click next]

Randomise the order of the following questions (QB1-QB6)

QB1 This choice is about the company you read a description of. The special pot quadruples what you put into it. But you will lose the points you put in the special pot if, at any time in

the next year, the company has a major IT problem that causes serious disruption to its business for at least 24 hours.

Please choose one of the following:

- o Put nothing in the special pot and keep all 2,000 points*
- o Put 500 points in the special pot and keep 1,500 points*
- o Put 1,000 points in the special pot and keep 1,000 points*
- o Put 1,500 points in the special pot and keep 500 points*
- o Put all 2,000 points in the special pot and keep nothing*

QB2 Identical to the question above but replace underlined text with *receives the lowest ratings for customer service in a survey of different companies in its sector.*

QB3 Identical to the question above but replace underlined text with *is forced to withdraw an advert because the Advertising Standards Authority rules it is misleading*

QB4 Identical to the question above but replace underlined text with *loses the personal financial data of a large number of customers*

QB5 Identical to the question above but replace underlined text with *is criticised by consumer groups for not explaining fees and charges clearly in all their communications with customers*

QB6 Identical to the question above but replace underlined text with *awards its top management team large cash bonuses even when the company has performed poorly*

[Time all questions]

SECTION C

Randomise order of QC1, QC2, and QC3.

QC1. Thinking about the company that was described earlier,, how far do you agree or disagree with the following statements? Please use a scale of 1 to 5, where 1 is strongly disagree and 5 is strongly agree.

Grid columns with 1-5 scale.

Grid rows with the following statements displayed in a random order.

This company appears to be successful at the things it tries to do

I feel very confident about this company's skills and abilities

This company seems to be well qualified in the area of online banking

This company seems to have a great deal of knowledge about what needs to be done to run a bank

[Time question]

QC2. Thinking about the company that was described earlier, how far do you agree or disagree with the following statements? Please use a scale of 1 to 5, where 1 is strongly disagree and 5 is strongly agree.

Grid columns with 1-5 scale.

Grid rows with the following statements displayed in a random order.

*It doesn't seem this company would knowingly do anything to hurt me
This company seems to really look out for what is important to people like me
This company seems to try hard to be fair in dealings with others
Sound principles seem to guide this company's behaviour*

[Time question]

QC3. Thinking about the company that was described earlier, how far do you agree or disagree with the following statements? Please use a scale of 1 to 5, where 1 is strongly disagree and 5 is strongly agree.

*This company delivers what it promises.
This company's product claims are believable.
This company is trustworthy.*

[Time question]

FINAL QUESTIONS

QZ1. At the start of this survey, it said that the company described is a real company. How confident were you that this was true?

Please use a scale of 1 to 5, where 1 is not at all confident and 5 is very confident.
ADDITIONAL RESPONDI DEMOGRAPHICS

You are almost done. To conclude, we would like to learn a little more about you as a person.

*What is your highest level of education?
No formal education or qualifications (yet)
GCSEs or equivalent
GNVQs or equivalent
A levels / AS levels / Scottish Highers / NVQ levels / Int. Baccalaureate
Professional Qualification
Undergraduate degree or equivalent
Postgraduate degree or equivalent*

What is your gross annual household income (before deductions)?

*Less than £15,000
£15,000 to £24,999
£25,000 to £34,999
£35,000 to £44,999
£45,000 to £54,999*

£55,000 to £64,999
£65,000 to £74,999
£75,000 to £84,999
£85,000 to £94,999
£95,000 to £124,999
£125,000 to £199,999
£200,000 or more
Prefer not to say

DEBRIEFING

For all participants except the winner of the free prize draw:

Thank you for participating in this research. It was designed to look at how people's trust in different companies varies depending on what they know and on the format of the question that a researcher uses. The research will allow researchers at Warwick Business School and Teneo to better understand what makes different companies more or less trusted. This will then allow companies to better understand why people do or do not trust them, and what they can do to improve the situation.

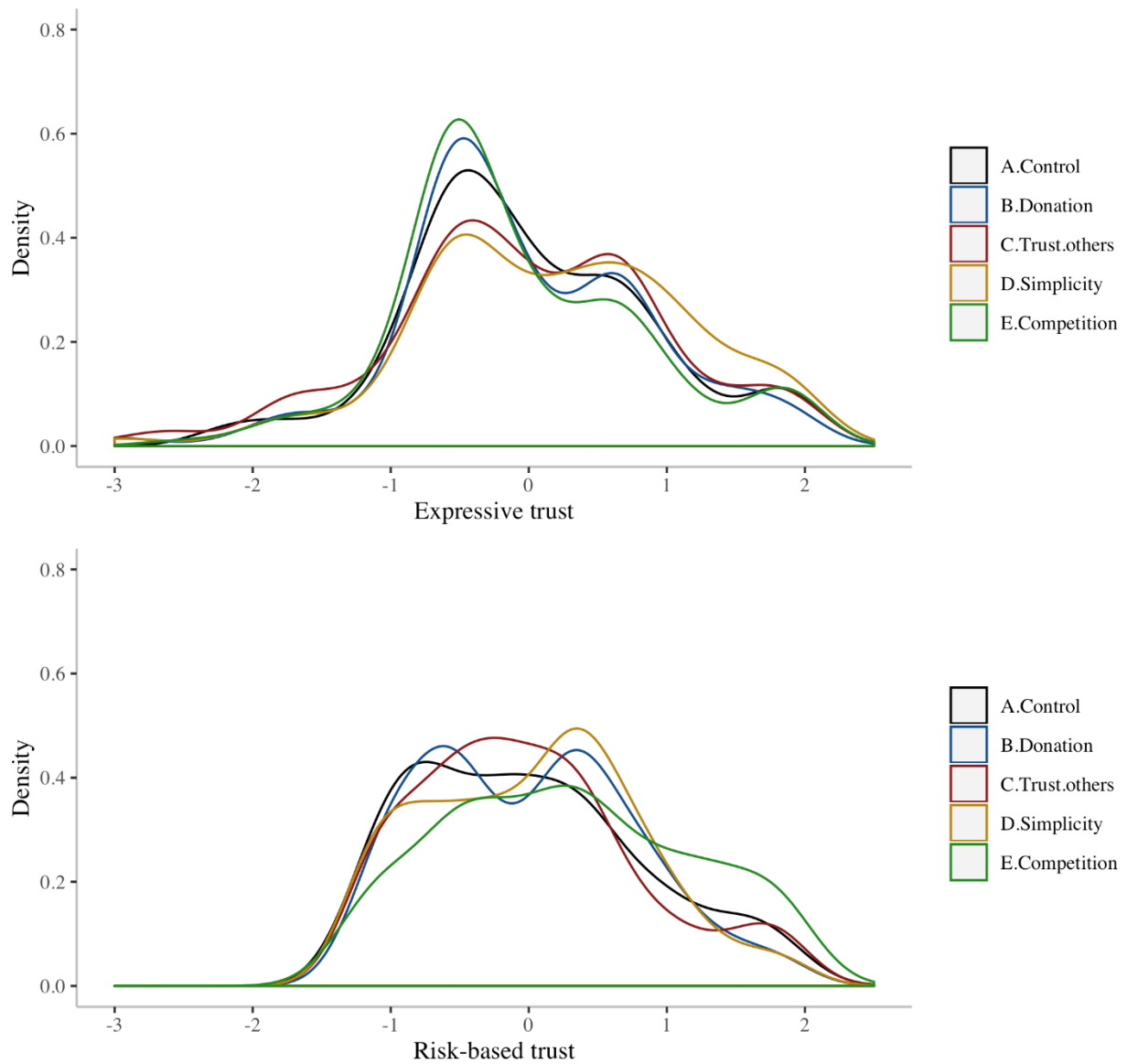
The company described is based on a real company, but some fictional elements have been added to see if they affect how trustworthy people think the company is. No one should make financial decisions based on information presented to them in this opinion poll. If you have any questions about the project, please contact[REDACTED].

For the winner of the free prize draw, show the above text and then add:

Of all the people who took part, you have been randomly chosen to have your choices played out in full. However, because this is only the second time we have run this survey, we have decided to simply pay you the maximum winnings of 48,000 mingle points now instead of waiting a year and seeing which events occurred or not. In future surveys, we have no expectation that we will use this approach again. An extra 48,000 mingle points will be credited automatically to your account.

APPENDIX 4: STUDY 2 ADDITIONAL MATERIAL

Figure A2. Distributions of two different measures of trust in Study 2



Normalised so each control group mean equals zero, and control group standard deviation equals 1. Only showing those who saw the relevant metric first